RESEARCH REPORT

COMPREHENSIVE ANALYSIS OF SELF-BUILD HOUSING EXPERIENCES

HOUSING AFFORDABILITY AND FINANCE SERIES

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Comprehensive Analysis of Self-Build Housing Experiences

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PURPOSE

The objective of this report is to provide a comparative analysis of self-build housing approaches for possible application in the Canadian context. To achieve this goal, a framework has been developed to identify factors of success or failure in various self-build initiatives. This analytical framework has been designed to function as a tool for evaluating international and Canadian initiatives and for identifying the range of self-build initiatives worthy of consideration in Canada. In other words, the analytical tool is capable of evaluating international self-build experience that could be applied to the Canadian context and of measuring the feasibility of potential and existing home-grown initiatives. In addition, the analytical framework provides a useful checklist and series of prompts which can benefit a group developing their own self-build initiative. Users of the tool can include self-build participants, community-based interest groups, policy makers in government, and financial institutions.

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The authors of this report would like to thank the many contacts in universities, development agencies, government departments, housing services and private consultancies in Canada, the United States, the United Kingdom, Australia, Sweden and the Netherlands who contributed to our study of self-build initiatives by responding to questions and forwarding information. Their names and corresponding organizations are listed in Appendix D.

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EXECUTIVE SUMMARY

The objective of this report is the development of a comprehensive analytical framework to evaluate self-build experience both in Canada and abroad and to determine the potential transferability of international initiatives to the Canadian context. The mandate was to develop a practical tool for the comparative analysis of self-build initiatives, a tool which could identify the major factors that contribute to the success or failure of any given initiative. The focus of the self-build initiatives chosen for analysis is primarily on urban multi-family and rehabilitation examples.

Six categories were selected for use in the analytical framework as a method of classifying the factors that are essential to the success of an evaluated self-build initiative. These categories are:

- organization;
- financing;
- design;
- construction;
- post-occupancy; and
- institutional context.

Each category comprises five key factors which are necessary considerations in any self-build project that is to succeed in Canada.

Organization

- A grass-roots, community-based initiative (as opposed to a government-initiated project) draws greater support and contribution from the community, harnesses a broader array of resources and provides higher levels of creativity and incentive.

- A self-build project organized with the primary objective of producing homes for the participants (as opposed to a project with the main goal of providing training or rehabilitation) has a greater chance of success at producing homes at reduced cost.

- The inclusion of a community development strategy (building a stronger community, consolidating an existing community, developing human capacity) builds a broader base of support for self-build initiatives.

- Self-build participants must form an organizational structure for the purposes of management, administration and decision making for the initiative. Responsibilities of the organization include formulation of objectives, initiation of development, arrangement of financing and selection of design.

- Successful self-build initiatives include, as part of their organizational objectives, a consensual agreement to a minimum post-occupancy tenure;

in the absence of such an agreement, the mutual objective of housing production at reduced cost may be undermined by motives of speculation and profit.

Financing

- All self-build projects must have an approved source of capital or financing which covers not only planned aspects but also cost overruns and unforeseen contingencies.

- Although the financial plan of an initiative would be incomplete if the full range of available incentives (programs and tax breaks) were ot investigated, the project must be able to proceed independently of government incentives.

- Self-build participants must determine, in advance, the extent to which lenders will recognize non-cash equity (owned land, self-build labour, donated materials) in assessing the lending value and amount of borrowing.

- A legal framework, such as exists in Canada, must be in place to provide an effective mechanism through which to pledge property to secure a mortgage.

- The financing of a self-build project depends, to a great extent, on the ability of the participants to meet the loan conditions of the lender (e.g., mortgage insurance, property pledge, minimum level of pre-sales in a development).

Design

- Any housing project, including self-build, must conform to national and local building codes.

- Any housing project, including self-build, must also conform to municipal zoning by-laws.

- Key aspects of the housing project's design concept are the approval of a design professional, the involvement of the self-build participants in the design process, the flexibility of the design and ensuring that the design is in keeping with prevailing urban or rural patterns and in accordance with the tastes and desires of the self-builders.

- The project design must incorporate features specifically geared to a northern climate and prevailing regional norms.

- The design for the initiative must be subject to an economic feasibility study to ensure its cost effectiveness and to ascertain

that the self-build aspect of the project's design represents a cost reduction over conventional build.

Construction

- For the housing venture to be valid as a self-build initiative, the participants must ensure that their project is cost effective and that the labour and homeownership costs are reduced as a result of the participants' contributions to the construction process.

- The most preferable construction method chosen for the initiative will be one that conforms to local conditions.

- The self-build participants must supply or recruit the necessary labour skills so the project can be undertaken and completed satisfactorily and within budget.

- The construction of an initiative can be executed successfully only if all required materials and tools are available locally or can be acquired easily and affordably.

- A mechanism for quality control is an essential component of any self-build initiative, whether such a mechanism is provided from within the ranks of the participants or from an external regulating body.

Post-occupancy

- A successful initiative will satisfy two primary self-build objectives: the provision of homes for the people who participated in their production, and the provision of such homes at a lower cost than for homes built conventionally. Ideally, the affordability of the housing will have made homes accessible to participants who would otherwise not have been in a position to be homeowners.

- The housing produced by self-build initiatives, particularly in renovation projects, frequently contributes to the enhancement or regeneration of neighbourhoods, in aesthetic, financial and social respects.

- The organizational networks created by self-build initiatives, if maintained beyond project completion, can provide ongoing benefits of a managerial, financial and community-related nature to the participants (i.e., building management, municipal lobbying, conflict resolution, self-policing).

- If skills enhancement for the purpose of increased employability is an ancillary objective of the initiative, self-build participation can provide training and experience which may prove valuable to people who worked on the housing project either in management and administration or construction.

- Self-build initiatives produce housing that is deemed more satisfactory to the participants than homes built and purchased conventionally (i.e., higher degrees of quality and precision, higher levels of pride and satisfaction with results).

Institutional context

- The existence of a supportive framework (government and non-government) greatly enhances the opportunities for success of a self-build initiative (i.e., formal recognition of self-build, existence of a system of housing finance, existing network of self-build organizations).

- Self-build participants will provide additional support and benefit to their initiatives when they research and access any sources of available technical assistance.

- Self-build participants should explore all possible sources of financial aid that may be available from different levels of government or from foundations.

- Although the support of community organizations can be highly beneficial to any self-build initiative, the initiative must be organized and financed so it can function independently (i.e., in the absence of any such organizations).

- Self-build participants must ensure that their initiative is in compliance with all relevant government and industry housing regulations, including those governing the proper use of union and non-union labour, non-conventional building techniques and self-build multi-unit projects.

Chapter 1 of the report defines self-build, differentiating it from the concept of self-provision and from the broader context of self-help. The second chapter outlines the numerous issues relevant to a discussion of self-build and provides a justification for the selection of the six categories used in the evaluative framework. The analytical framework itself is then described: the Stage 1 level of analysis which proceeds by submitting a chosen self-build initiative to a series of 30 critical questions, and the Stage 2 level of analysis which provides a more detailed evaluation by submitting a selected initiative to a total of 146 questions. A brief description is provided for each of the 30 critical questions, and the 146 detailed evaluation questions are listed.

The third chapter presents a profile of the 30 self-build initiatives that were analyzed according to the Stage 1 and Stage 2 levels of analysis.

Conclusions are presented in the fourth chapter, followed by a complete bibliography. The appendices to the report include a guidebook to the analytical framework. Each numbered entry relates to a corresponding question in the detailed (Stage 2) evaluation and elaborates on some of the issues that should be considered in an evaluation of any self-build initiative. The purpose of the guidebook is to help the user identify either key positive factors or weaknesses/failings in an examined initiative and to receive advice or guidance for further consideration in terms of the initiative's validity and its applicability to the Canadian context.

Completed Stage 1 and 2 forms are included in appendices B and C respectively. The listing of consultants in Appendix D closes out the report.

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INTRODUCTION

Housing affordability is an important issue for many people today. Global economic restructuring and demographic and lifestyle changes make it difficult for certain segments of the population to purchase or improve their homes. These changes require innovative housing strategies (Friedman et al., 1996). A parallel phenomenon is the development of homebuilding technologies by manufacturers targeting the ultimate housing occupant in addition to professional tradespeople. The fact that fully one third of the total renovation costs for 1994—over $5.5 billion—was spent by consumers on materials for projects which they intended to undertake themselves is a reflection of the increasingly popular trend toward home renovation "supermarkets" where homeowners are encouraged to participate actively and directly in the improvement, expansion or construction of their homes (CMHC, 1993). The development of building products accessible to homebuyers permits "do-it-yourself" or self-help strategies that have, so far, not been considered on a large scale in Canada: "Through the introduction of new tools, materials, building techniques (for instance, timber frame construction), courses (e.g., carpentry) and information and advice (e.g., renovation magazines), self-help has received a tremendous impulse in the past 20 years" (Priemus, 1984). Self-help strategies—frequently associated more with the developing world than with Western countries—can create a new approach to the cost reduction of housing, when properly selected and modified. These strategies focus on the notion that a portion, or all, of the homebuilding process can be transferred to the home occupant in what has come to be referred to as "sweat equity."

Over the last decade, there has been a growing interest in Canada in the broader context of housing and the role of sound affordable housing as a social and economic stabilizer in the often stressed lives of lower-income households (CMHC, 1989; Armitage, 1992; Carter, 1992; Pomeroy, 1995b; Prince, 1995). The Standing Committee on Human Resources Development noted in 1995: The lack of adequate housing affects the most vulnerable members of our society and impedes their full participation in the economic and social life of the country. The committee suggests that any community economic and social development strategy take into consideration the strong positive role local housing organizations can play in mobilizing community resources (Canada Communication Group, 1995).

The underlying premise of the current report is that funding for the traditional forms of assisted housing development—predominantly the production of non-profit and cooperative developments—is now severely constrained. Yet, at the affordable end of the market, housing demand continues to outweigh supply. Alternative lower-cost and unsubsidized means of addressing housing need are now preoccupying the minds of policy analysts and housing providers. Because self-help initiatives substitute the unremunerated time of future occupants for paid labour and professional advice, they are expected to reduce the development cost of housing. Additionally, social housing programs, similar to many mainstream social programs and forms of income assistance, tended to be paternalistic in nature and have created dependency. Increasingly, advocates of social policy reform assert that traditional programs and approaches have not merely bred a dependency but have suppressed the rich capacity of skills that exist in many communities (Bohach, 1996).

As one aspect of the self-help movement, self-build is consistent with the prevailing fiscal and policy environment which strongly favours low-cost strategies and, to a more limited extent, capacity-building approaches. Initiatives which assist people to help themselves through collective effort and which harness an array of local resources are seen to be far more effective and sustainable than the traditional government programs which sought primarily to redistribute wealth and ensure a more equitable outcome rather than to focus on improving the means of people to earn a sustainable livelihood (Torjman, 1996).

Rowe (1994) has defined self-help housing as housing in which the eventual occupants arrange for the building of their dwellings and, in various ways, participate in its production. He further indicates that self-help can be applied in a renovation or rehabilitation exercise which is typically labour intensive but in which the self-help participant would not necessarily be the original occupant. Self-provision (or self-promotion) refers to groups whose labour is limited to planning and development activities, excluding physical construction. An example of self-promotion would be a typical development under the now-inactive federal co-op housing program. Although generally assisted by professional non-profit resource groups, the future residents who incorporated as the cooperative were actively involved in site selection and in a collaborative design process with an architect. They also participated in a training and education program to develop skills and expertise which were subsequently applied to the ongoing operation and self-management of the development on occupancy. The intermediate phase involving the actual construction, however, was typically undertaken by a building contractor. The occupants of self-provision projects did not participate in this construction process beyond a monitoring role.

Self-build—as opposed to self-provision—encompasses any range of housing activities in which there is an element of participation by future occupants, specifically including the physical act of building, site acquisition and financing, architectural design and contracting (Crosbie, 1993). The self-build process can vary in scale from a simple project with minimal planning and regulation to a highly organized group scheme with outside assistance. The products of self-build can range from a single provisional habitat to a multi-unit development of finished dwellings. Self-build can incorporate various levels of technology and industrialization, and it can be undertaken in regulatory climates ranging from hostility and indifference, as in certain Latin American countries, to sponsorship and active promotion, as in the United Kingdom (Salas, 1988). A critical element in self-build is the procurement of affordable housing, that is, the provision of housing at reduced cost through the reduction or elimination of paid labour. Participation in the self-build process is also expected to generate a variety of ancillary benefits, including development of skills expertise and improved self-esteem, stronger social networks and community cohesion, and an increased sense of belonging and interdependence.

The current investigation focusses on the self-build process but also encompasses some aspects of self-promotion. It includes self-finishing and acquisition/renovation of existing structures. The central feature of all these approaches is that the eventual occupants have some direct influence and control over the design, cost and construction of their dwellings; they also have the option of determining the degree of their own participation.

The objective of this report is to provide a comparative analysis of self-build housing approaches for possible application in the Canadian context. To achieve this goal, a framework has been developed to identify factors of success or failure in various self-build initiatives. This analytical framework has been designed to function as a tool for evaluating international and Canadian initiatives and for identifying the range of self-build initiatives worthy of consideration in Canada. In other words, the analytical tool is capable of evaluating international self-build experience that could be applied to the Canadian context and of measuring the feasibility of potential and existing homegrown initiatives. In addition, the analytical framework provides a useful checklist and series of prompts which can benefit a group developing their own self-build initiative. Users of the tool can include self-build participants, community-based interest groups, policy makers in government, and financial institutions.

THE ANALYTICAL FRAMEWORK: BACKGROUND

Development of the Six Categories

The primary objective of this research study is the development of a comprehensive analytical framework to evaluate self-build experience and to determine potential transferability to the Canadian context. The mandate was to develop a practical tool for the comparative analysis of self-build. This tool must identify the major factors that contribute to the success or failure of self-build. The focus is primarily on urban, multi-family, self-build and rehabilitation examples.

To meet this mandate, the research team undertook an exhaustive search of the literature relevant to self-build initiatives, an examination of international and Canadian self-build case studies and interviews with contacts in universities, development agencies, government departments, housing services and private consultancies in Canada, the United States, the United Kingdom, Australia, Sweden and the Netherlands. (See Appendix D.) The central element of this investigation was the identification of critical factors in the range of cases reviewed. The task was then to condense this information into useful categories that could be represented in a comparative framework.

Numerous studies have reviewed self-build examples and enumerated extensive factors and considerations to take into account (Peddie, 1994; Rowe, 1994; Wilkinson and Kardash, 1992; Vale, 1977). Some authors have sought to categorize the wide range of activities involved in self-build. Fowler (1993) outlines the nine basic steps of the multi-unit self-help process:

- development of a non-profit organization;
- data collection and goal formation;
- development of a resource base;
- site search and selection;
- design and marketing;
- pre-construction activities;
- construction;
- evaluation; and
- learning and moving on to the next project.

Salas (1988) divides the self-help experience into four broad categories:

- process (organization, management, expectations, course of action, execution time, construction guidelines, technical advice);
- product (formal appearance, conceptual design);
- technological medium (materials, equipment and tools, labour force, construction and structural concepts); and
- socioeconomic medium (state hostility and indifference versus state encouragement and support).

Active and meaningful participation was highlighted as a key element together with the need to establish a formal organization within which to develop and administer the initiative (NFHA, 1988a, 1988b; Pour, 1988; Siddiqui and Khan, 1994). Notably, the absence of an effective management and organizational structure was emphasized as a primary cause of difficulties (legal, financial and interpersonal) in self-build initiatives (Priemus, 1984).

In any comparative analysis and assessment of transferability, the situational context from which the initiative is drawn is an obvious consideration. Context was noted as an important influence in a variety of studies, in particular the institutional framework in which the initiative took place. In some cases, the formal agencies of government were seen as key players in providing supportive legislation to facilitate both building and financing, technical expertise, relaxation of certain codes and requirements and, at times, financial assistance (Robben, 1986; Oxman and Carmon, 1989). In contrast, other analysts noted the impeding impact of government regulation and suggested that more flexible regulations or even the absence of a government role and specific building regulations facilitate the process of self-build (Duivestei-Teijn, 1994; Siddiqui and Khan, 1994). Clearly such examples have a limitation in Canada where a strong system of planning and building codes prevails.

The review of experience in the United Kingdom reflects a culture of community self-build and provides strong support for the capacity-building aspect of self-build, including legislative, financial and technical issues (NFHA, 1988a, 1988b; Bubel, 1989; Edwards, 1989). More recently, a similar supportive context has developed in Australia (SACHA, 1996).

Many studies presented considerable information on design aspects with a strong emphasis on simple design and construction methods. These were seen as critical in facilitating the self-build process (Ribbeck, 1993).

From this extensive search, the researchers extracted a list of key factors as a first step in developing the analytical framework:

- decision-making process;
- management and administration;
- objectives (housing versus. personal/community development);
- individual versus group self-build;
- grass-roots versus imposed initiative;
- motivation;
- financing;
- cost effectiveness;
- government funding;
- state intervention and involvement;
- design/urban planning;
- codes/by-laws/regulations;
- growth and flexibility;
- climate/regionality;
- housing product;
- construction methods;
- building materials and tools;
- sweat equity/user participation;
- skills and training;
- technical assistance;
- role of building industry;
- user satisfaction and pride; and
- community associations.

The designers of the analytical framework then reduced the number of potential categories by consolidating related topics under more general headings. The two main principles behind this consolidation were:

- the production of a limited and workable number of categories, to facilitate and simplify their application in the analytical framework;
- the grouping together of topics which are linked in both subject matter and chronological sequence in the actual self-build initiative process.

The results of this consolidation produced six categories of critical issues:

- organization;
- financing;
- design;
- construction;
- post-occupancy; and
- institutional context.

Organization

This category includes all aspects of a self-build initiative related to its initiation, management and administration, and to the achievement of consensus on common objectives and procedures. A major concern with regard to self-build initiatives, raised repeatedly in the literature, involves the issue of organization: "[It] was neither the design nor the techniques that were a problem so much as management and organization [of the Maconochies Wharf Housing Scheme, Isle of Dogs, United Kingdom]; learning how to conduct meetings and instill discipline" (Edwards, 1989). As Wilkinson and Kardash (1992) concluded: "People who are to live and work in such [self-build] projects have to be invited in the early stages of development to discuss the priorities of planning, management, finance and construction." Essential considerations with regard to the organizational component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed noted later in this section) include:

- whether it was initiated by grass-roots motivation;
- housing procurement as the primary objective;
- community development strategy;
- the structure of the organization; and
- whether the participants had to commit to residing in the finished housing.

Financing

Financing includes all aspects of a self-build initiative related to securing financing through mortgages and loans, sweat equity, personal savings, sponsorship, grants, government incentives, assets and other issues related to the financing of land, materials and services. Without a scheme for sound financing, an initiative will encounter difficulties at even the most preliminary stages. Essential considerations with regard to the financing component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed) include:

- obtaining approved financing;
- investigating government incentives;
- equity;
- legal issues; and
- loan conditions.

Design

This category includes all aspects of a self-build initiative related to the design and urban planning of the housing and its conformity to all required codes, by-laws and guidelines. The role of the architect in self-build is different from the role of the architect in conventional build: architects become "enablers rather than specifiers" (Martin, 1994). The "relationship between client and architect becomes delicate" since "those who build also, in theory, instruct the architect" (Claxton, 1989). Without a design plan, an initiative cannot proceed to the construction stage nor can it be properly costed. Essential considerations with regard to the design component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed) include:

- building codes;
- municipal regulations;
- design concept;
- climate and culture; and
- costing.

Construction

All aspects of a self-build initiative related to the construction of housing, including the building process, housing product, materials and tools, labour force, skills and training, and local conditions are part of this category. At the heart of the self-build concept is the value of sweat equity which can save on labour costs and reduce homeownership costs by 20 to 35 per cent (Crosbie, 1993; Claxton, 1989; Rowe,1994). Without any discussion of construction with regard to a self-build initiative, the entire process would become meaningless. Essential considerations for the construction component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed) include:

- cost-effectiveness;
- local conditions;
- available skills;
- local resources; and
- quality control.

Post-occupancy

This category includes all aspects of a self-build initiative related to the use of the homes produced by the initiative and to any ancillary, ongoing benefits accruing from the establishment of the organizational networks. This category explores both the produced housing and the benefits to individual participants and the community as a result of the self-build experience. Following examinations of the organization, financing, design and construction of a self-build initiative, the discussion of post-occupancy issues evaluates the overall success or failure of an initiative from personal and social perspectives. Essential considerations with regard to the post-occupancy component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed) include:

- housing affordability;
- neighbourhood rehabilitation;
- maintenance of established networks;
- skills enhancement; and
- the levels of satisfaction and quality.

Institutional context

A key aspect of this study was to evaluate the potential transferability or adaptability of self-build experience from other countries. Accordingly, a category that evaluates the relative context was deemed necessary. The category, institutional

context, includes all aspects of a self-build initiative related to community or government agencies which may have jurisdiction over the housing project or which can assist, support or sponsor self-build activity. The relationship with these agencies, and their assistance (or lack thereof), can vary greatly according to country and region and can influence the results of the initiative as well as the initial feasibility (Salas, 1988). Since no housing project, self-build or otherwise, can proceed without reference to the larger framework of government regulations and programs, an examination of the institutional context is required for any self-build initiative. Essential considerations with regard to the institutional context component of self-build initiatives (reflected in the critical questions by which an evaluated initiative is to be assessed) include:

- the extent to which a supportive framework (government and non-government) exists;
- the level of technical support and assistance;
- access to aid programs;
- community networks; and
- the nature and enforcement of housing regulations.

Design and Function of the Analytical Framework

The analytical framework has been designed to function as a tool for evaluating international and Canadian self-build initiatives and for identifying the range of initiatives worthy of consideration in Canada. This evaluative tool has been designed with two successive stages, according to the degree of detail desired for an analysis of any particular initiative.

Stage 1: the fast track

In the first stage of analysis—the fast track—the user of the tool submits the chosen self-build initiative to a series of five critical questions that have been developed in each of the six categories. The purpose of this first stage is to evaluate the most basic aspects of a selected initiative. After answering these preliminary 30 questions with yes, no or N/A (not applicable), the user should have already gained some impression of the feasibility of the evaluated self-build initiative in terms of its applicability to the Canadian context.

The present report provides examples of 30 self-build initiatives which are analyzed according to the Stage 1 level of analysis (see Appendix B). These 30 case studies have been selected for evaluation on the basis of their diversity in terms of participant type, organizational method, design, building form and method, urban or rural setting, region and country, culture, regulatory and institutional context, and type of financing.

Table 1 presents the Stage 1 form used to evaluate the 30 selected initiatives. The form is divided into the six categories of critical issues, and each category is subdivided into five critical questions. A full explanation of these 30 critical questions follows, arranged according to category. (The sub-category questions of the Stage 2 analysis, described later in this chapter, provide a further level of definition to the critical questions.)

All questions in the analytical framework have been worded to provide a "yes" answer if the corresponding feature of the initiative demonstrates both success as a valid self-build issue and applicability to the Canadian context. A "no" answer indicates that the corresponding feature of the initiative fails either as a valid self-build issue or in its potential applicability to the Canadian context. An "N/A" (not applicable) answer indicates that the question is not suited to that particular feature of the evaluated initiative. A blank answer indicates that insufficient information was available to answer the question.

A key consideration in designing the analytical framework is the context in which it will be applied. A variety of different users will all have varying points of reference, and the framework was designed to accommodate this diversity. The framework has therefore been developed to be flexible and adaptable to the needs and applications of the user. A comprehensive and extensive set of questions has been incorporated into the framework. Users can therefore select those that are relevant and appropriate to the specific context and application, while they can ignore or discard those that are not.

Organization

- Was the project a grass-roots initiative (e.g., not government initiated)? Given the absence of funding for new development programs in Canada, there is a strong interest in initiatives that can be achieved without reliance on government. It is desirable to identify these types of approaches. Efforts that have evolved from grass-roots, community-based initiatives can provide useful lessons; in particular, these groups tend to draw greater resources from the community and harness a broader array of resources (e.g., land, materials, sweat equity). Conversely, when the product is stimulated in response to a formal government program which provides funding and expertise, there is less need to be creative. It may be difficult or impossible to replicate the government-sponsored product; the grass-roots approach can, however, lend itself to reproduction. The drive for continuous and spontaneous self-regeneration provides a higher level of incentive than government-sponsored renewal (Oxman and Carmon, 1989).

- Was the initiative's primary objective the procurement of housing? An initiative organized with the primary objective of producing homes for the self-build participants, as opposed to an initiative with the primary objective of either providing training and rehabilitation or offering an opportunity for capital investment, has a greater chance of success at producing homes at reduced cost. The objectives of training and skills enhancement frequently involve extra cost. Care must be taken to separate the various objectives and their associated costs.

- Was the initiative part of a community development strategy? A common feature of many self-build initiatives is that they form part of a community development strategy, with objectives that include the building of a stronger community, the consolidation of an existing community (i.e., preventing resident displacement) and the development of human capacity. Community- and capacity-building goals are valid and supportive self-build objectives. The integration of affordable housing objectives with community development builds a broader base of support for housing initiatives and enhances mutual support in the community.

- Did the participants form and maintain an organizational structure? A very basic and preliminary consideration is that the self-build participants form an organizational structure for the initiative management, administration and decision making (NFHA, 1988a, 1988b; Wilkinson and Kardash, 1992). Examples of activities and plans to be included in the organizational structure of an initiative include the formulation of objectives, designation of responsibilities, appointment or election of directors and supervisors, initiation of development, selection of design, arrangement of financing, subcontracting of non-participant labour, establishment of communication networks with both participants and external agencies, and scheduling of training.

- Did the initiative require a minimum post-occupancy tenure? Group cohesion and community spirit are degraded and resentment is engendered when the objective of some of the initiative participants is to sell their portion of the finished housing rather than to inhabit the homes produced by the initiative (Edwards, 1989). Successful self-build projects include, as part of their organizational objectives, a consensual agreement to a minimum post-occupancy tenure; in the absence of such an agreement, the mutual objective of housing production at reduced cost may be undermined by motives of speculation and profit. There are, however, examples where occupancy was not necessary: in initiatives where labour is involved in some form of training exercise and when the tenure is rental (Roberts, 1995).

Financing

- Did the initiative have an approved source of financing? The foremost and most basic element in this category is that the initiative obtain an approved source of capital or financing which not only provides for the planned aspects of

the project but also includes provision for cost overruns and unforeseen contingencies.

- Could the initiative operate independently of government financing and incentives? Many self-build examples are facilitated by government funding. In the context of this report, there is an emphasis on self-build without direct government funding. Can the initiative proceed independently of government incentives? Even without subsidy, the financial plan would be incomplete if the full range of available incentives (programs and tax breaks) were not investigated (Oxman and Carmon, 1989).

- Were all forms of equity recognized in the initiative's lending process? Owned land, self-build labour and donated materials all represent forms of equity. In seeking financing, it is important to determine, in advance, the extent to which lenders will explicitly recognize this non-cash equity in assessing the "lending value" and amount of borrowing.

- Did a legal framework exist to enable financing? The ability of a group to secure financing is affected by the financing system in place. In Canada, a formal legal framework establishes this system. Examples from other jurisdictions must be able to comply with these requirements. In some cases, notably in the United States, the legal framework goes beyond facilitating financing to mandating it: the lenders are legislated to provide financing. In other cases, financing may be more informal, such as peer lending models. In Canada, the legal framework provides an effective mechanism through which to pledge property to secure a mortgage.

- Did the initiative meet the loan conditions of the lender? Lenders establish the terms under which they will provide a mortgage loan. In some cases, they may require some form of guarantee or insurance to limit their risk. This can also include demanding that borrowers take personal responsibility for the repayment, pledging other property or assets. Before advancing a construction loan, lenders may also require a clear commitment from a minimum number of occupants or consumers (e.g., a certain minimum level of pre-sales in a condominium development).

Design

- Would the initiative meet national and local building codes in Canada? Any housing project, including self-build, must conform to national and local building codes. The initiative participants, through their design consultant, are responsible for ensuring that the project adheres to the codes in both design and construction.

- Would the initiative meet municipal zoning by-laws in Canada? Similarly, any housing project, including self-build, must conform to municipal zoning by-laws. The initiative participants, through their design consultant, are responsible for ensuring that the project adheres to the by-laws in both design and construction (or ensuring that they obtain the required variances).

- Were all aspects of the design thoroughly addressed? Aspects of the initiative's design concept which must be addressed are the approval of a design professional, the involvement of the self-build participants in the design process, the flexibility of the design, and ensuring that the design is in keeping with prevailing urban or rural patterns and in accordance with the tastes and desires of the self-builders (Oxman and Carmon, 1989; Pour, 1988; Wilkinson and Kardash, 1992).

- Was the initiative designed for a northern climate/Western culture? Many sources of inspiration for design are available to participants in self-build initiatives, but the ultimate design must incorporate features specifically geared to a northern climate (i.e., for most part, harsh) and prevailing regional norms.

- Was an economic study made of the design? Whether built by conventional construction

or by self-build, any design should be analyzed to ensure that it is optimal and feasible relative to budget. The design for the initiative will be subject to an economic feasibility study to ensure its cost effectiveness. Where the focus is on production at lower cost, the costing analysis of affordable housing must ascertain that the self-build aspect of the project's design represents a cost reduction over conventional build.

Construction

- Was the self-build aspect of the initiative cost effective? For the housing venture to be valid as a self-build initiative, the participants must ensure that their project is cost effective and that the labour and homeownership costs are reduced as a result of the participants' contribution to the construction process. Alternatively, the process might seek to increase the quality of the housing product rather than reduce cost (Crosbie, 1993; Edwards, 1989; Claxton, 1989; Fitzpatrick, 1992).

- Would the construction method be applicable to local conditions in Canada? The most preferable construction method chosen for the initiative will be one that conforms to local conditions. The participants will ensure that materials and tools specific to local requirements are available if needed and that their construction method is appropriate to local environmental conditions.

- Could the initiative be executed given the available skill level? The self-build participants must supply or recruit the necessary labour skills so the project can be undertaken and completed satisfactorily and within budget. This consideration of labour skills includes a full assessment of the participants' skills and the availability of external assistance if needed, and the provision of simplified and clarified building processes to facilitate the participants' work (Bubel, 1989; Pour, 1988).

- Could the initiative be executed given the available resources in Canada? The construction of an initiative can be executed successfully only if all required materials and tools are available locally or can be acquired easily and affordably. The participants will also investigate the availability of standardized components and sources of technical innovation which could facilitate the building process (Architectural Record, 1987; Claxton, 1989).

- Were quality-control standards incorporated in the initiative? A mechanism for quality control is an essential component of any self-build initiative, whether such a mechanism is provided from within the ranks of the participants or from an external regulating body (Claxton, 1989).

Post-occupancy

- Did the self-build participants produce their own homes at reduced cost? A successful initiative will satisfy two primary self-build objectives: the provision of homes for the people who participated in their production, and the provision of such homes at a lower cost than for homes built conventionally (Broome, 1993). Ideally, the affordability of the housing will have made homes accessible to participants who would otherwise not have been in a position to become homeowners.

- Did the self-help process enhance, regenerate or rehabilitate the neighbourhood? The housing produced by self-build initiatives, particularly in renovation projects, frequently contributes to the enhancement or regeneration of neighbourhoods (Ribbeck, 1993; Robben, 1986). The positive effects of reinvigoration can be not only aesthetic and financial but, by direct extension, social (i.e., reduction of crime and vandalism, alleviation of poverty and neglect) as well (Pearson, 1994).

- Were any initiative networks maintained after project completion? The organizational networks created by self-build initiatives, if maintained beyond project completion, can provide ongoing benefits of a managerial, financial and community-related nature to the participants. Building management, municipal

lobbying, conflict resolution and self-policing are some of these potential benefits.

- Did participation result in increased skills and employability? If skills enhancement for the purpose of increased employability is an ancillary objective of the initiative, self-build participation can provide training and experience which may prove valuable to people who worked on the housing project either in management and administration or construction (Claxton, 1989).

- Did self-build produce more satisfactory results than conventional build? Self-build initiatives produce housing that is deemed more satisfactory to the participants than homes built and purchased conventionally. Higher degrees of quality and precision are perceived in the finished product, and participants experience a higher level of pride and satisfaction with the results of their own labours (Priemus and Metselaar, 1987; Oxman and Carmon, 1989; Broome, 1993; Edwards, 1989; Fitzpatrick, 1992).

Institutional context

- Did a supportive framework (government and non-government) exist to facilitate self-build? The existence of a supportive framework greatly enhances the opportunities for success of a self-build initiative. Even without government funding, the formal recognition of self-build, the existence of a system of housing finance and an existing network of self-build organizations all facilitate the activities of self-build participants.

- Did the initiative take advantage of available technical support? Self-build participants will provide additional support and benefit to their initiatives when they research and access any sources of available technical assistance.

- Did the initiative take advantage of available financial aid programs? Financial aid may be available from different levels of government or from foundations. Self-build participants should explore all possible sources (Oxman and Carmon, 1989).

- Could the initiative function in the absence of community networks? Although the support of community organizations can be highly beneficial to any self-build initiative, the initiative must be organized and financed so it can function independently (i.e., in the absence of any such organizations). Many self-build initiatives focus on the production of a single home and can be undertaken independently by the owner-builder. In multi-family and lower-income initiatives, a broad range of resources can be tapped from within the community. These can include assistance in the form of donated materials, labour, technical and professional help.

- Did the initiative meet government and industry housing regulations? Self-build participants must ensure that their initiative is in compliance with all relevant government and industry housing regulations, including those governing the proper use of union and non-union labour, non-conventional building techniques and self-build multi-unit projects (Priemus, 1984).

Stage 2: detailed evaluation

In the second stage, the user of the analytical framework selects any question from the original 30 and is directed to a series of further questions (again in a yes, no or N/A format) which evaluate detailed aspects of the chosen sub-category. In other words, each of the 30 critical questions becomes a sub-category with its own corresponding series of questions. For example, if the user chooses the category, design, and selects the question: "Would the initiative meet national and local building codes in Canada?" the user can then be directed to a series of questions relevant to detailed aspects of building codes.

The purpose of Stage 2 is not only to permit a more detailed evaluation of any particular initiative but to provide additional clarification to the basic questions of Stage 1. If the user answers "no" to one of the questions in Stage 1, the corresponding series of questions in Stage 2 allows the user to investigate the issue in greater detail and to analyze which particular aspect of the examined

self-build initiative may have been overlooked or miscalculated.

An additional function of Stage 2 enables the user to evaluate detailed aspects of a chosen sub-category and then to receive guidance and direction to relevant information. For example, if the user chooses the category, design, and the question on building codes, and then proceeds to select the question on health and safety regulations in the sub-category on codes, the user can be directed to a numbered item in a guidebook (corresponding to the sequential number of the sub-category question) which will provide brief guidance on the particular subject. In the preceding example, this guidance would be a reference to specific sections in the National Building Code. This function allows the user to identify weaknesses or failings in the examined self-build initiative and to receive advice for further consideration in terms of the initiative's validity and its applicability to the Canadian context.

The present report provides examples of five self-build initiatives which are analyzed according to the Stage 2 level of analysis (see Appendix C). These five case studies have been chosen from among the 30 selected for Stage 1 analysis on the basis of their variety, potential adaptability to the Canadian context, and comprehensiveness of detail as researched in the literature. Accordingly, the five initiatives are subject to the detailed evaluation of the full analytical framework. In other words, each initiative is submitted to the series of questions in all of the five sub-categories in each of the six main categories: a total of 146 questions.

The complete listing of the detailed evaluation questions is presented below, arranged according to category and sub-category. Each question is numbered sequentially for direct reference to the guidebook containing further description and elaboration of the related self-build issues and considerations. The purpose of this guidebook (Appendix A: Guidebook to the Analytical Framework) is both to provide a basis for the selection of the questions and to direct readers interested in particular aspects of the self-build process to relevant references.

Organization: sub-category questions

- Was the project a grass-roots initiative (e.g., not government initiated)?
  1) Was the project formed by a core of motivated community leaders?
  2) Did the participants take advantage of available professional organizations?
  3) Were participants required to meet specified eligibility criteria?
  4) Did recruitment to the initiative take into account the skills and expertise of potential participants?

- Was the initiative's primary objective the procurement of housing?
  5) If the initiative had multiple objectives, was the primary objective the procurement of housing?
  6) Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?
  7) Was training made available for unskilled participants?
  8) Were low-income or unemployed people allowed to participate in the initiative?

- Was the initiative part of a community development strategy?
  9) Was the objective of the initiative to build a stronger community?
  10) Was the objective of the initiative to develop human capacity?
  11) Was the focus of the initiative a deprived area (high poverty and unemployment)?

- Did the participants form and maintain an organizational structure?
  12) Was the initiative formally incorporated?
  13) Was a structure introduced for the purpose of accessing funding and financial assistance if available?
  14) Did the initiative's organizational structure function as its own general contractor?

15) Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?
16) Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?

- Did the initiative require a minimum post-occupancy tenure?
  17) Were the participants committed to a minimum period of occupancy?
  18) Were the participants committed to restrictions on future sale of their units?

Financing: sub-category questions

- Did the initiative have an approved source of financing?
  19) Were the participants able to secure housing loans or mortgages as a self-build group?
  20) Did the participants develop their own or take advantage of available community loan funds?
  21) Did the participants take advantage of available low-interest or interest-free loans?
  22) Did the participants take advantage of available foundation (i.e., non-government) funding?
  23) Did the participants take into account pay-as-you-go financing in their budget?

- Could the initiative operate independently of government financing and incentives?
  24) Could the initiative operate independently of grants from government programs?
  25) Did the participants take advantage of available financial incentives?
  26) Did the participants take advantage of available tax incentives?
  27) Did the participants take into account the cost of mortgage insurance in their budget?

- Were all forms of equity recognized in the initiative's lending process?
  28) Were the participants able to use owned land as equity?
  29) Did the participants include land equity in their financial calculations?
  30) Was the value of sweat equity recognized by the lenders?
  31) Was the value of donated materials and labour recognized by the lenders?

- Did a legal framework exist to enable financing?
  32) Did the participants ensure the existence of a housing finance system in their region/country?
  33) Was the initiative's loan secured by the property (i.e., a mortgage loan)?
  34) Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?
  35) Did legislation in the initiative's region/country mandate lenders to provide financing to community-based groups or low-income people?
  36) Did the participants secure the services of a notary or legal advisor?

- Did the initiative meet the loan conditions of the lender?
  37) Did the participants fulfil the conditions of their construction loan?
  38) Did the initiative's costs remain within the lender's approved loan amount?
  39) Could the participants proceed with their initiative without a down payment?
  40) Did the initiative obtain financing on a group (i.e., not individual) basis?
  41) Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?

Design: sub-category questions

- Would the initiative meet national and local building codes in Canada?
  42) Were the products approved and tested by a testing agency?

43) Did the initiative meet local fire, electrical and plumbing codes?
44) Did the initiative meet health and safety regulations?
45) Did the initiative meet minimum room standards?
46) Did the initiative have the openings and means of egress required by law?
47) Did the initiative meet federal and provincial R-value regulations for roofs and walls?

- Would the initiative meet municipal zoning by-laws in Canada?
  48) Was the design approved by municipal authorities?
  49) Did the initiative adhere to local building height and form restrictions?
  50) Did the initiative conform to local setback and lot coverage regulations?
  51) Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?
  52) Did the initiative conform to local regulations concerning unfinished construction?

- Were all aspects of the design thoroughly addressed?
  53) Was the initiative approved by a design professional?
  54) Were the participants involved in the design process?
  55) Were the initiative's design objectives defined and agreed upon?
  56) Did the initiative's design address prevailing urban or rural patterns?
  57) Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?
  58) Was the relationship between private and public space addressed in the design?

- Was the initiative designed for a northern climate/Western culture?
  59) Did the building's form lend itself to a northern climate?
  60) Did the design specifications meet Canadian R-value requirements?
  61) Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?
  62) Were the building materials chosen for harsh weather resistance?
  63) Did the unit layout conform with regional lifestyle norms?
  64) Did the project provide for the parking needs of its inhabitants?
  65) Did the project utilize "green" building products?

- Was an economic study made of the design?
  66) Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?
  67) Was a cost estimation of materials and processes made?
  68) Was the availability of specified materials and their cost confirmed?
  69) Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?
  70) Was a study made of alternative cost-saving features?
  71) Was the self-build aspect of the initiative more cost effective than conventional build?

Construction: sub-category questions

- Was the self-build aspect of the initiative cost effective?
  72) Did the initiative have a strict work schedule in place?
  73) Were the work schedule and duration realistic, given the skill of the labour force?
  74) Did participants fulfil the time requirements of their labour contribution to the initiative?
  75) Could necessary additional skills and resources be secured when needed to prevent delays and added cost?
  76) Did volume purchasing result in cost reduction of materials?
  77) Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?

78) Did the sweat equity component of the initiative reduce labour costs and homeownership costs?

- Would the construction method be applicable to local conditions in Canada?
  79) Was a building/construction permit issued for the initiative?
  80) Was the issue of construction safety addressed?
  81) Was a soil test undertaken before construction began?
  82) Did the specified wall section correspond to the required energy-efficiency standards?
  83) Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?
  84) Did the construction process account for local weather patterns?

- Could the initiative be executed given the available skill level?
  85) Did the initiative have an experienced site supervisor to oversee the construction?
  86) Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?
  87) Were experts available to train the labour force if needed?
  88) Was maximum use made of the labour force within the group of participants?
  89) Did the building process accommodate varying skill levels of participants?
  90) Were the building processes simplified and clarified for the sake of the self-build participants?
  91) Did the composition of the initiative's labour force conform to prevailing regulations governing union and non-union labour?

- Could the initiative be executed given the available resources in Canada?
  92) Were the building requirements met using existing and available local components and materials?
  93) If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?
  94) Did the participants have access to the required tools?
  95) If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?
  96) Could heavy machinery be secured if needed?
  97) Were the building components standardized to facilitate assembly?

- Were quality-control standards incorporated in the initiative?
  98) Was a mechanism in the organizational structure of the initiative established to regulate quality control?
  99) Did the initiative have at its disposal a person with the requisite skills to inspect construction?
  100) Was a contingency plan established to allow for rebuilding in the event that mistakes were made?
  101) Did the labour force provide finishes that would be acceptable to future inhabitants?
  102) Did the self-motivation of the participants encourage self-regulating quality control?

Post-occupancy: sub-category questions

- Did the self-build participants produce their own homes at reduced cost?
  103) Did the self-provision component of the initiative reduce housing costs?
  104) Did the self-build labour component of the initiative reduce housing costs?
  105) Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?
  106) Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?

- Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?

107) Did the initiative have a positive financial impact on the neighbourhood?
108) If the initiative involved renovation work, were buildings saved from decline or demolition as a result?
109) Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?
110) Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?
111) Was the sense of community bolstered by the collective self-help process?
112) If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?

- Were any initiative networks maintained after project completion?
  113) Were networks maintained for the purpose of building management?
  114) Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?
  115) Were networks maintained for the purpose of conflict resolution?
  116) Were networks maintained for the purpose of self-policing?

- Did participation result in increased skills and employability?
  117) Were participants" managerial and organizational skill levels raised as a result of the initiative?
  118) Were skills learned in the construction phase an asset in the job market?
  119) Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?
  120) If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?

- Did self-build produce more satisfactory results than conventional build?
  121) Did the self-built housing yield fewer building deficiencies than the product of conventional build?
  122) Was there a greater diversity of unit types as a result of the initiative?
  123) Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?
  124) Was the housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?
  125) Did the participants who inhabit the homes they helped build move less frequently from these homes than from other homes?
  126) Were new community groups formed on completion of the initiative's housing?

Institutional context: sub-category questions

- Did a supportive framework (government and non-government) exist to facilitate self-build?
  127) Was self-build explicitly recognized in the region/country's housing system?
  128) Was the self-build initiative subject to different codes and standards from conventionally built housing?
  129) Was a system of housing finance available (e.g., mortgage lending through a formal land registry/titling system)?
  130) Did a network of self-build organizations exist from which participants could seek assistance?
  131) Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?

- Did the initiative take advantage of available technical support?
  132) Did the initiative take advantage of available research and technical expertise?
  133) Did the initiative take advantage of available technical resources?

134) Did the initiative take advantage of available manuals and guidelines?
135) Did the initiative take advantage of available community college training and expertise?

- Did the initiative take advantage of available financial aid programs?
  136) Did the initiative take advantage of available government programs which assist self-build groups in securing financing?
  137) Did the initiative take advantage of available government funding programs for self-build?
  138) Did the initiative take advantage of available community loan funds and land trusts?
  139) Did the participants create their own community loan lending model as part of the initiative?

- Could the initiative function in the absence of community networks?
  140) Did the participants investigate the possibility of registering with a self-build association if available?
  141) Was the initiative undertaken in a region where self-build is accepted by the housing industry?
  142) Was the initiative undertaken in a region where the government supports community-based housing approaches?

- Did the initiative meet government and industry housing regulations?
  143) Did the initiative meet union regulations?
  144) Did the initiative meet regulations concerning non-conventional building techniques?
  145) Did the initiative meet regulations concerning self-built multi-unit projects?
  146) Did the participants make provision for the long-term affordability of the initiative's housing in the event of resale?

SELF-BUILD INITIATIVES PROFILED

The 30 self-build initiatives that were evaluated using the analytical framework are profiled in this chapter.

Initiative: **Self-Build Renovation — Givat Olga, Israel**

Date: circa 1980

Number of units: Unspecified

Source: Oxman, Robert and Naomi Carmon. (1989). "The Open Form." Open House International. 14 (1): 15-20.

Summary

The project in Givat Olga, Israel was a self-initiated renovation of existing government-built medium-density housing from the 1950s. The neighbourhood had been included as one of the 160 "neighbours in need" by the Israeli national program of community renewal. The original apartments, in one- and two-storey buildings, were small by Israeli standards (25 to 45 m²) and most of the occupants/owners were low-income families. These standardized units were of concrete frame construction with concrete block in-fill. They were designed as compact homes and there was no original intention for their further expansion. Socioeconomic factors within the community inspired the project and each unit was renovated individually. From the original standardized plans, additions were made to the small central core, altering plan types and changing circulation patterns. Most of the renovations were large-scale additions which increased the area of the dwelling an average of 115 per cent. The most common renovation was the expansion of both the kitchen and the central living space, the creation of a new private entrance and the addition of a terrace. Existing wall openings and entry ways as well as the location of plumbing fixtures were the main constraints. Funding for the expansions was derived on an individual basis; some were financed from personal savings and others from government organizations. Most residents are satisfied with their new apartments and the renovation has improved the liveability of the dwellings. The extent and diversity of the renovations changed the appearance of the neighbourhood and created a sense of individuality for the owners.

Organization

- Self-initiated, large-scale renovations of government-built, medium-density housing to improve individual dwellings.
- Government had no organizational role.
- Occupants owned their own dwellings.

Financing

- Requirements vary depending on renovation size.
- Thirty per cent government financed.
- Fifty per cent financed from savings.
- As a result of their status as homeowners, the participants were able to avoid difficulties in securing loans for renovation work.
- No legal framework existed to enable financing, outside the government subsidy.
- Despite the sometimes radical nature of the renovation work, it appears as if those who needed loans were able to secure them.

Design

- Most renovations would likely meet Canadian building codes.
- Because of the large scale of the renovations, such building would likely be prohibited by local by-laws in Canada.
- The design concept of each renovation depended on the needs and desires of its inhabitants.

- Although from a Western culture, these projects are not from a northern climate.
- No study was made of the economic aspects.

Construction

- As a result of the build-as-you-can-afford-it approach, the self-help contribution was cost effective.
- The concrete block construction system could be executed with a very limited skill level.
- Concrete and concrete block can be executed almost anywhere in Canada except in extremely remote areas where the cost of their transportation makes them unfeasible.
- Expert advice would probably not be necessary, but if it was, it would not be hard to find.
- Although concrete and concrete block technology are extremely versatile, the principle behind these schemes lends itself to flat sites.
- The system can be executed to a level of acceptable quality and durability quite easily.

Post-occupancy

- It appears as though the self-help contribution made possible most of the renovations.
- Although there is no evidence of any direct benefit to the community as a result of self-build, dwellings that were once identical to those around them are now distinct and identifiable.
- Occupants were extremely satisfied by the results of their efforts.

Institutional context

- All renovations progressed in the absence of a formal supportive framework.
- Some projects received government subsidies, but no technical support.
- Because the government was anxious to improve the quality of the housing, regulations did not prevent even the most radical of renovations.
- As the people involved were responsible for their own project, community networks, although possibly helpful, were not necessary.

Initiative: ERA Block — Zoetemeer, the Netherlands

Date: 1969-1970

Number of units: 288

Source: Metselaar, A. and A. Hoenderdos. (1986). "Multi-Story Self-Help: Zoetemeer, The Netherlands." Open House International. 11 (3), pp. 49-55.

Summary

The ERA Block is a multi-storey, self-help building in the Netherlands. It is a rental building designed to accommodate changes in the layout of each apartment. Each unit was built as a concrete shell with non-load-bearing interior wall partitions. These partitions can be moved to alter the layout of individual units. During the initial construction of the project, prospective tenants were allowed to choose their own floor plan. The self-build initiative reduced the cost of each unit and allowed for flexibility and variety in the design. After occupancy, tenants were able to alter the layout of the design to suit their own requirements. Although in each unit the kitchen, central hall and sanitary facilities have a fixed location, walls can be added or removed to create a variety of plan types. Out of 104 surveyed flats, 86 had undergone some change. The most common change was to remove walls in order to create a larger kitchen and storeroom. Many tenants also replaced the original kitchen and bathroom fixtures. According to the rental agreement, tenants had to receive the landlordís written approval to make any alteration; however, in practice only about 10 per cent of the changes were reported. Tenants were responsible

for returning the flats to their original condition when they moved out which often created problems during the change-over. Other complaints arose around the fact that partitions had to be purchased from the landlord and therefore other materials were often used as partitions. At the time of construction, the idea of a self-help building with rental tenure was a relatively new and unexplored idea in the Netherlands and many other developments have followed.

Organization

- Multi-story housing block built as shell housing with rental tenure, not grass roots.
- The owner of the block allows tenants to alter flats but they must be returned to original layouts when tenants vacate.
- By law, the owner of the building owns all renovations and, as such, tenants receive no equity for their efforts.
- All work takes place within the organizational structure established by the owner; as such, the tenants form no structure of their own.
- Unit plans could be chosen before occupancy and are alterable after occupancy.

Financing

- Self financed.
- No information on possible sources.
- No direct government role, yet most housing in the Netherlands is, to some extent, socially subsidized.
- Tenants are paid or given credit in the form of further improvements for their efforts.

Design

- The initiative could fail to meet national and local building codes in Canada, because occupants move into units before they are complete.
- Because the main body of the building is completed before the self-help contribution, it is unlikely that specific zoning by-laws would be affected.
- The design concept seems to be quite clear and resolved although somewhat oppressive in terms of its urban presence.
- The initiative was designed for Western culture and, to some extent, a northern climate.
- While the extent of each renovation varies, tenants claim that buying partitions from the landlord was unfairly expensive.

Construction

- Despite the cost of partitions, the self-help contribution makes user participation possible.
- Because the concrete exterior of the building is finished before the self-build aspect takes place, such an initiative is very flexible in terms of the variety of conditions it can accommodate.
- All partitions are non-load bearing and the system is designed for a limited skill level.
- The needed resources, timber, concrete and the various finishes are readily available in most areas, except perhaps those that are extremely remote.

Post-occupancy

- Self-build not only reduced the cost of the dwellings, but allowed for individualization by occupants.
- There is no information as to the sociocultural implications of this process.
- No networks were formed.
- Occupants are able to "design" their own units, the self-build makes this possible in

a multi-story situation, where under normal circumstances it would not be.

Institutional context

- The project was executed entirely without outside assistance; the only exception being that rent might be controlled as is the case frequently in the Netherlands.
- Although supportive frameworks for self-build now exist in the Netherlands, when the project was executed they did not.
- The initiative was subject to government housing regulation.
- No networks were formed.
- Such an initiative would likely meet government and housing industry regulations in Canada, with the exception that unions might feel that self-build cuts into the extent of their work.

Initiative: Shell Dwellings — Kockengen, the Netherlands

Date: 1980s

Number of units: Unspecified

Source: Priemus, Hugo. (1984). "Self-Help in Dutch Housing." Open House International. 9 (3), pp. 4-11.

Summary

The Shell Dwellings in Kockengen, the Netherlands are the result of a private for-profit initiative. The program was funded partially by the government because of its focus toward quality affordable housing. The exterior shell and technical aspects of each row house were completed by skilled labourers with standard construction practices. The units were then sold to low-income families who were willing to complete the houses themselves in order to lower the cost and create diversity in the development. Each house was bought individually; therefore, financing differs for each inhabitant. The project was a successful self-build development and supplied several low-income families with a higher housing standard than they could afford in traditional housing. Government financial aid and subsidy programs determined the success of the project.

Organization

- The project is not government initiated; it is standard for-profit development.
- The primary objective of such a development is profit.
- No organizational structure was necessary.
- The project was not part of a community development strategy.
- Although it appears as if no minimum post-occupancy tenure was in place, the nature of shell dwellings is such that regulation would be unnecessary (i.e., dwellings are taken over incomplete and, as such, their ultimate value rests on their ownersí capacity to complete them).

Financing

- The nature of this scheme is such that by leaving dwellings incomplete, the lower cost in conjunction with the inhabitantsí low income levels, makes them doubly available for government subsidy.
- The nature of each inhabitantís financing scheme is different and, as such, no information of the lending processes was available.
- As inhabitants buy their dwellings individually, no legal framework is necessary.

Design

- The initiative could meet building codes and zoning by-laws in some areas of Canada while pre-completion occupancy restrictions may prevent it from doing so in others.

- The design concept appears to have been quite rigorously refined.
- The initiative is designed for both a northern climate and a Western culture.
- As housing was procured in a for-profit development scenario, one would clearly assume that a feasibility study was undertaken.

Construction

- Maximum subsidy is achieved as a result of buildings being left partially complete; thus, the self-build aspect of the project makes it feasible.
- The construction method appears to be quite standardized and, as such, could likely be executed with a limited skill level.
- In most areas in Canada resource availability would not hinder such a project, except perhaps in extremely rural places.
- The majority of the initiative was executed with skilled labour on a standard construction site; thus, one assumes that there were quality control standards in place, while the shell dwelling completion has only to be executed to the satisfaction of the inhabitants.

Post-occupancy

- The shell dwelling self-build scenario allowed participants to house themselves more affordably than they would otherwise have been able, using more standard processes.
- The development was not strictly located in an existing neighbourhood, but became its own community.
- No networks were needed for the execution of the project.
- As the way in which inhabitants decide to complete their dwellings depends on their ability and preference, the acquisition of new skills in this regard is difficult to measure.
- The project allowed inhabitants to both personalize their dwellings and acquire them at a reduced cost: as such, self-build did produce more satisfactory results than conventional methods.

Institutional context

- Significant formal support from government now exists in the Netherlands for self-build.
- As the majority of the project is executed using skilled labour, technical support was unnecessary.
- The success of the project depends on government financial aid and is, in fact, designed around two subsidy programs.
- Formal community networks did not govern the projectís success.
- The project would meet government housing regulations in most areas although the housing industry might object to work lost as a result of the shell concept.

Initiative: Social Sector Self-Build — Dronten, the Netherlands

Date: 1980s

Number of units: Unspecified

Source: Priemus, Hugo. (1984). "Self-Help in Dutch Housing." Open House International. 9 (3), pp. 4-11.

Summary

The Social Sector Self-Build project is a government-funded initiative to improve the availability and affordability of social housing in Dronten, the Netherlands. Units are designed and constructed to varying degrees of completeness from empty shells to virtually finished units. Participants could purchase or rent the new homes and complete interior construction on their own. The design was developed with self-builders in

mind and, therefore, special construction methods adapted to suit unskilled workers. These flexible dwellings were a successful development in the emerging field of rental self-build. This was a relatively unusual project at the time of construction and subsequently encouraged governments to adapt legislation to enable the development of further projects such as this.

Organization

- The project is not a grass-roots initiative, it is social housing.
- As the project was initiated in the social housing sector, its primary objective is procuring housing; despite this, community development was likely a secondary objective.
- Although it appears as if organizational structures exist, given the projectís origins, they were likely not formed by the participants.
- The project is a combination of rental tenure and dwellings for sale; it is unlikely that a minimum post-occupancy tenure was in place.

Financing

- The project, as built, is entirely government funded, but a large portion of dwellings were sold on completion.
- The only source of equity is the tenantsí labour or "sweat equity."
- As the initiative has no organizational structure outside the government program, it is unlikely a legal framework would be necessary.

Design

- The dwellings are designed to varying degrees of completion, from empty shells to dwellings that are nearly complete; as a result, it is likely that they might infringe on codes in some areas.
- In a standard urban area, the project would likely adhere to most zoning by-laws.
- The project was designed for both a Western culture and a northern climate.
- As the project was the result of government funding, it is likely that an economic study took place.

Construction

- The project was in response to criticism of the high cost of social housing; the economic feasibility of its self-build aspect was paramount.
- As the project was designed for a culture and climate similar to our own, it seems likely that the construction method might be applicable in most parts of Canada.
- The assembly method was specifically designed with self-builders in mind so limited skills would not hinder its execution.
- As the project is for an urban site, availability of resources given a similar scenario in the Canadian context would likely not be a problem.
- Although there is no direct evidence of predetermined quality-control standards, the scheme was designed to be self-build; thus one hopes that such standards were incorporated.

Post-occupancy

- In some instances, the self-builders produced homes that they later bought; in others, rental dwellings were produced. The schemeís viability depended on the self-build aspectís capacity to reduce costs.
- There is no evidence regarding increased employability; despite this, the extensive nature of the self-build contribution could well have provided participants with needed skills.
- Self-build produced results that would have been impossible had traditional methods been used.

Institutional context

- The Netherlands is increasingly recognizing the significance of its self-help sector; as such, the incidence of formal support mechanisms is on the rise.
- Due to its origins in the social sector, government financial and technical support were certainly at the core of the whole project.
- As the project is essentially social housing, albeit of a very different kind, community networks were not necessary for its success.
- Because both its construction and occupancy process are somewhat unorthodox, it seems likely that such a project might run into problems with regard to government and housing industry regulations.

Initiative: Anniversary Plan — Huizen, the Netherlands

Date: 1984

Number of units: 93

Sources: Priemus, Hugo. (1984). "Self-Help in Dutch Housing." *Open House International.* 9 (3), pp. 4-11.

Priemus, Hugo and Ans Metselaar. (1987). "Self-Help and New Rented Dwellings in the Netherlands." *Open House International.* 12 (4), pp. 12-17.

Summary

The Anniversary Plan in Huizen, the Netherlands was an experiment in self-help rental dwellings. The initial outer shell of the units was designed and constructed, and then left to the tenant to complete. The tenant therefore had control over the final layout of the design and the finishings. By completing the houses themselves, tenants saved on labour costs which were then returned to them in the form of design extras such as dormer windows and garden sheds. After all their efforts and accomplishments, many tenants felt more at home in their new dwelling and were more likely to stay for a long time. However, if a tenant moved out, he/she would have to wait 15 years to be fully reimbursed for the facilities installed. Tenants were pleased with the development and felt it gave them a greater sense of individuality in their new community. On average, occupants took 5.3 weeks to complete the work and, although this was much longer than the predicted time, most were highly satisfied with the outcome. However, because of the self-help regulations for rental units at the time of construction, the cost of housing was not significantly reduced.

Organization

- The project is not a grass-roots initiative, it is social housing.
- Although the initiativeís primary objective is the creation of housing, the dwellings operate under rental tenure.
- As the initiative creates shell dwellings, any organizational structure would likely be casual and for assistance during dwelling completion.
- The inhabitants do not own their dwellings so no post-occupancy tenure is necessary.

Financing

- The initiative is government financed.
- Financial incentives come in three forms: the cost savings that result from the sweat equity contribution can be put in savings where they are subject to taxes, or reinvested in the dwelling, and on moving out, the landlord must reimburse the tenant for a portion of the completion or renovation work.
- Although no formal sources of equity are necessary, the tenants' sweat equity contribution is recognized in the ways described above.

- The sweat equity contribution as described above is recognized in the tenancy agreement.

Design

- Construction is quite standard, the only possible code infringement would be with regard to occupancy as a result of the shell housing strategy.
- The project is designed for both a Western culture and a northern climate.
- The incentives to personalize and renovate dwellings were made possible by the projectís capacity to be executed affordably.

Construction

- The self-build aspect's cost effectiveness is determined by each occupant; despite this, from the government's point of view, handing over dwellings that are unfinished is inherently cost effective.
- The shell dwelling rental strategy is, in fact, quite an innovative method and is likely to be quite applicable throughout Canada.
- Such a project very much lends itself to a limited skill level.
- The construction is standard timber frame, thus needed resources are readily available throughout the country.
- As dwellings are handed over as shells, quality control with regard to the self-help contribution depends on what inhabitants can tolerate.

Post-occupancy

- The participants were able to individualize and add value to their rental units as a result of self-build; as such, the results were more satisfying to the occupants than they would otherwise have been.

Institutional context

- The Netherlands is increasingly recognizing the significance of its self-help sector; as such, the incidence of formal support mechanisms is on the rise.
- As the initiative resulted from social investment, all forms of government aid were at its disposal.
- It remains to be seen whether such a scheme could operate in the absence of government or community support and organization.
- This shell concept is not too radical but, like others, might conflict with government regulations concerning occupancy in some areas.
- Shell dwellings, by nature, decrease the amount of work done by professional tradespeople. Such strategies might be contrary to union regulations in some areas.

Initiative: Roan Court — Macclesfield, United Kingdom

Date: 1980s

Number of units: 32

Source: Wates, Nick. (1988). "The Hackney Phenomenon." *The Architect's Journal.* February 20, pp. 47-63.

Summary

Roan Court is a self-build, for-profit 32-house estate developed in Macclesfield, United Kingdom. The terraced houses were designed and constructed by Rod Hackney who initiated several other similar projects. By acting as architect, developer, builder and estate agent, he was in full control of every aspect of the development. Buyers could purchase either a completed home, a serviced slab or anything in between. Any construction had to follow Hackney's design; however, changes to the interior layout and details were permitted. Hackney's construction company built the

houses for those who wished and was available to assist any self-builder with a difficult task. The high quality finishes and materials, and emphasis on craftsmanship resulted in a high standard of living at a lower cost than other more traditional developments.

Organization

- The initiative was not grass roots; it was a self-build, for-profit development.
- The developmentís primary goal was profit.
- In that the developer changed the type of housing from rowhousing to terrace housing, which is predominant in the area, in response to criticism from the local authority, the project which was aimed at very low-income earners was, in part, driven by a community development strategy.
- Included in the cost of the unit was an established managerial and assistance structure; hence participants did not need formal organizational skills.
- There are no restrictions on tenure.

Financing

- The development is entirely privately financed, and participants buy the opportunity to build under supervision at a price that, as a result of their labour, is below market value.
- In addition, the developer, architect, builder and all trades operate under one person so the profit margin is narrowed and units are more affordable.
- Because the development is for-profit, it is unlikely that it would be eligible for significant government assistance.
- The low cost of the units is achieved through buyers contributing their labour; as such, it becomes a valued source of equity.
- A legal framework exists only to allow the occupants to buy their dwellings directly from the developer.

Design

- The initiative would likely meet all code requirements as the construction and design are very traditional.
- The design is noteworthy in that it builds upon both the urban tradition in the locality and upon its tradition of construction.
- The initiative is designed for both a northern climate and a Western culture.
- The development is speculative and its feasibility depends on turning a profit, so it is certain that an economic study was made.

Construction

- The development is structured such that units are available at varying levels of completion; occupants have the option of buying anything from a completed terrace to a serviced slab that is priced accordingly. As such, the burden of cost-effective, self-help lies on the (future) inhabitant.
- The construction is masonry with timber in-fill which is quite widely applicable.
- Although masonry bonding requires more skill than timber frame, the way this project was structured, self-builders had access to assistance on site or could choose to have the construction company execute aspects of the construction they felt they were unable to do themselves.
- Most of the rough structural materials used in the project are readily available in most parts of the country while some of the finishes would be more difficult to find.
- Because there are both architects and builders on site at all times, quality control is guaranteed.

Post-occupancy

- The extent to which each inhabitant is willing to take responsibility for construction determines the savings as a result of self-build.

- The form, construction and organization of the development is very similar to existing urban structures. As a result, the town is developing in a sensitive careful way; such development can only help to regenerate the area.

- The developer's services and structures remained in place after the project was complete, giving residents access to architectural, planning and construction services.

- The development encourages people in the vicinity to become involved in the project either as inhabitants or tradespeople; in addition, the local council helped unemployed people get access to financing.

- Because skilled tradespeople were available throughout the life of the project and the unemployed could contribute more time, they were able to house themselves more affordably and to have access to skills training while doing so.

- The self-build aspect allowed people of different means to have access to affordable housing and offered them the choice of the extent of their self-help contribution.

Institutional context

- No government technical support was used.

- Aside from local council support, no financial aid was used.

- The developer, in a sense, brought all the needed networks to the scheme.

- The scheme might run into problems similar to those experienced by shell dwellings as a result of the varying levels of completion offered.

- As with many self-build projects, the housing industry might object to the loss of labour at various levels of construction as a result of occupant building.

Initiative: Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Date: 1980s

Number of units: 89

Source: Edwards, Sarah. (1989). "Homes of Their Own." *The Architectís Journal.* October 18, pp. 50-65.

Summary

The Maconochies Wharf Housing Scheme was an initiative to save part of London's docklands from large-scale commercial development. Participants joined together to secure financing and organize the self-build development. They wanted to be closely involved with the self-build project but didnít want to compromise the final quality of their new home. Only high-quality materials were used to create a variety of solid houses with high living standards. In order to achieve this, the architect was in close contact with the residents and met often to discuss the layout and other options. Semi-detached and detached houses were not feasible because of the high cost of land; therefore, terraced row houses were the solution. Half the people involved in the initiative were employed in building trades which use traditional brick construction. The houses were built with masonry walls and slated pitched roofs. A variety of plan types and other options were available to create individual identity and variety. The project was completed ahead of schedule and at a lower cost than expected. However, a problem arose because the housing initiative did not have a required post-occupancy tenure and several participants sold their houses for profit once they were completed. Although residents are pleased with the development, most agree that the organization and management of the project could have been greatly improved.

Organization

- The project was initiated by an individual to save the docklands area of London from large-scale commercial development.

- The aim in so doing was to provide housing that was affordable to the original residents of the area.

- The Maconochies Wharf Housing Scheme was the largest of three similar self-build housing initiatives adjacent to one another that, in conjunction, account for a substantial contribution to the urban character of the neighbourhood at a scale that is contiguous with historical patterns.

- The initiative formed and maintained an organizing committee that was overthrown and replaced half way through the process.

- The initiative did not have a minimum post-occupancy tenure and, as a result, a number of participants sold their houses for profit on project completion to the distress of their neighbours.

Financing

- The initiative secured financing collectively.

- The participants financed the initiative entirely on their own, independent of government financing.

- Half the participants worked in the construction trades and all were employed which likely enabled the approval of financing under such non-traditional circumstances.

- The initiative was incorporated as a self-build housing association.

- As such, the initiative met the loan conditions of the lender.

Design

- The construction method was modern and quite standard employing a double-layered masonry, load-bearing wall with insulation in the cavity on pile foundations.

- The initiative would definitely meet municipal zoning by-laws in a similar urban situation.

- The design was quite ingenious: providing a vital public realm, continuity with the urban patterns, unobtrusive parking and units that were each different and individual.

- The initiative was designed for both a Western culture and a northern climate; the cavity wall system would likely perform well in Canadaís harsh conditions.

- An economic study was made of the design and, as interest rates changed, the building plan was adjusted to take advantage of resulting cost savings.

Construction

- The self-build aspect of the initiative was cost effective and allowed those involved to live in an area of London that they would otherwise have been unable to afford.

- The construction method would lend itself well to conditions in most parts of Canada being both energy efficient and durable.

- The assembly process, masonry bonding, would be difficult for people with a limited skill level.

- Slate, clay masonry and concrete masonry are available in Canada, although they might not be available locally in some parts of the country.

- As participants worked a great deal on their own homes, the process of self-interest as a means of quality control resulted in a very high level of quality.

Post-occupancy

- The participants produced their homes ahead of schedule at a reduced cost.

- The process enriched the area by maintaining a residential scale that was in danger of falling victim to the metropolitan scale of commercial development.

- In addition the social dynamic that resulted from the process, namely that each of the three schemes although adjacent to one another, are socially quite separate, is a testament to the community spirit that results from the process.

- Participants owned their own unit, no formal managing organization remained in existence after project completion.

- Because those involved in actual construction were in the building trades (those who were not acted as labourers), an increase in skills and employability as a result of the process is unlikely.

- Self-build provided the affordability margin that allowed ownership in the locality, facilitated community interaction and saved the site from commercial development.

Institutional context

- Although a substantial supportive framework does exist for self-build in the United Kingdom, there is no evidence that this initiative utilized it, perhaps because such a significant portion of the participants were in the building trades.

- It appears as if no outside technical support was accessed either.

- The initiative was executed independently of government financing.

- The community networks, both formal and informal, that were established during the process enabled its execution.

- The initiative complied with all regulations.

Initiative: Habitat for Humanity—Cheyenne River, South Dakota, United States

Date: 1994

Number of units: 30

Source: Pearson, Clifford A. (1994). "A Home-of-Their-Own Program for Native Americans." *Architectural Record.* September, p. 19.

Summary

Habitat for Humanity, a non-profit international organization, along with 1,200 volunteers constructed houses on the Cheyenne River Sioux Indian Reservation. With 30 three- and four-bedroom houses built in a week. They were wood frame structures with full basements and front porches. In order to accommodate Sioux traditions, large living and dining areas were allowed to provide flexible living space for extended families. The houses were laid out around a circle to emulate the way in which teepees were erected. Each house cost a total of $35,000 and homeownership programs were implemented in the hopes that ownership would improve the quality of other areas of life.

Organization

- Habitat for Humanity is a Christian-based international not-for-profit organization that seeks to provide housing to those most in need through careful financing, donations and volunteer labour.

- The procurement of housing is the primary goal, but as a means of breaking the cycle of dependency on welfare and fostering community through cooperation and volunteerism.

- The project in Cheyenne River had, as its goal, establishing an acceptable housing stock for the whole community and laying a social foundation on which the community could build.

- Participants must demonstrate to Habitat's local chapter (that acts independently) that sufficient community need and support exists and that future occupants have the ability to repay the small mortgage.

- Habitat guarantees a no-interest mortgage and if the family moves before the mortgage is repaid, Habitat sells the house to another needy family.

Financing

- The local Habitat affiliate manages a fund into which a family's mortgage payments are placed; Habitat takes out a second mortgage large enough to cover any possible capital gain should the house be sold for windfall profit.

- Habitat has a policy of not accepting any financial assistance in the United States and prides itself in remaining completely independent of government.

- At times, Habitat will accept donations of land on which to build houses.

- Habitat takes complete responsibility for administering the mortgage.

Design

- As the houses built at Cheyenne River were of the standard timber platform frame type, they would undoubtedly not infringe on building codes.

- Habitat builds in a rather standard manner, although it attempts to choose a floor plan that lends itself to the lifestyle of future inhabitants. In this instance the people of Cheyenne River come from a radically different cultural heritage and the housing built for them is remarkably similar to that built for middle Americans; as such, the design concept is superficially addressed.

- The construction method is standard and up to date, lending itself to both a northern climate and a Western culture.

The designs come from stock plans that Habitat uses; as such, their economic viability is assured and has been tested.

Construction

- The volunteer self-build labour is what makes Habitat's process both possible and so widely applicable.

- The construction method used by Habitat in North America (timber frame) is the most common type of assembly used in Canadian residential construction.

- It is both flexible and easy to execute for those with a limited skill level.

- The necessary materials for such construction are readily available throughout the country.

- Every house Habitat puts up is supervised by experts to ensure quality control.

Post-occupancy

- The self-build contribution by the future owner in addition to volunteer labour allows Habitat to sell the homes so affordably.

- In many instances including that of Cheyenne River, Habitat's contribution to the neighbourhood has been immeasurable, both in terms of the physical housing provided, 30 homes in this example, and in its capacity to unify community resources and demonstrate the power a community has to improve its situation.

- As such, the networks maintained are informal.

- For the people on the Cheyenne reservation, the skills learned as a result of Habitat's contribution certainly increased the very depressed community's ability to sustain itself in terms of employment.

- Rehousing an entire community would have been impossible using conventional housing methods.

Institutional context

- Habitat has its own supportive framework that provides appropriate communities with the financial assistance, organizational and construction expertise.
- Habitat is deliberately independent of government.
- Successful application to Habitat depends on a community's ability to organize itself, at least in part (Habitat provides some organization).
- Such an initiative, given its volunteer nature, would likely not infringe on government and housing industry regulations.

Initiative: Boston Commonwealth Housing Revitalization — Boston, Massachusetts, United States

Date: circa 1980

Number of units: 392

Source: Vale, Lawrence J. (1997). "The Revitalization of Boston's Commonwealth Public Housing Development." *Affordable Housing and Urban Redevelopment in the United States.* Thousand Oaks, CA: Sage Publications.

Summary

The Commonwealth public housing development was the revitalization of a declining 1950s public housing project. The original 648-unit complex, often referred to as Fidelis Way, fell into decline during the 1970s. There were endless plumbing and electrical problems, little upkeep of public spaces, poor management, and crime and racial tensions were high. Because of these factors, Fidelis Way was designated by the Boston Housing Authority as one of the top 10 developments in need and was later selected for a $31.5 million renovation. Organizations, community groups and tenants joined together to raise funds, reform the design and develop new plans for management and maintenance. The new housing project, Commonwealth, reduced the density of the original development by decreasing the number of units to 392 and provided separate housing for families and elderly individuals. The new design incorporated duplexes and triplexes in townhouse-like settings with community buildings and management facilities. Many family homes now had private entrances and personal outdoor space. A new privatized management system ensured the upkeep of Commonwealth, and attention to landscaping and outdoor accessibility for all ages helped to develop the housing project into a more liveable community. Tenant involvement in the project was essential. Most residents felt safer after the revitalization and agreed that it is a much healthier place to live and raise a family. Although there are still some community concerns, such as employment and drug use, the project is considered to be a success and has improved the lives of many.

Organization

- The revitalization was initiated by the Boston Housing Authority (BHA) in response to the egregious condition of many public housing facilities in the city.
- The Commonwealth project was chosen as a pilot because, of the 10 most dilapidated, it was deemed the most likely to succeed.
- The original project consisted of a number of medium- and low-rise buildings; the plan sought to decrease density, increase unit size, and to reprogram and landscape the site with extensive participation by the residents.
- The residents formed a tenants association to liaise with the various agencies involved in the revitalization.
- The redeveloped project was managed by a private management company under a subsidized rental tenure system.

Financing

- The redevelopment was financed by the city, the State of Massachusetts, and a Department of Housing and Urban Development (HUD) grant.
- It took place under a turnkey system whereby a private development corporation undertakes the entire project under the supervision of the BHA then the BHA buys the site back on project completion.
- The tenants association remains an integral part of the decision-making process despite the involvement of the private sector.

Design

- Given similar circumstances in Canada, the project would meet all building codes and by-laws.
- The design was quite innovative in that it converted the low-rise structures and the bottom of the mid-rises to rowhousing and redefined all the outdoor space with an acute understanding of the need for delineation of private, semi-private and public spaces.
- The scheme was designed for a Western culture and a northern climate.
- Extensive economic studies were undertaken prior to development.

Construction

- The initiative was entirely within the realm of self-help, having no self-build aspect.
- The inhabitants were heavily involved in the design process from the beginning; in fact, the tenants had an architect to educate and advise them on the implications of their decisions.

Post-occupancy

- The project, consisting of a number of buildings, was, before the revitalization, heavily vandalized, vermin infested and felt to be unsafe by its inhabitants.
- The site is now home to a quiet, safe, low-income community.
- The management structures and tenants association remain in existence to ensure tenant satisfaction and responsibility.
- As the project did not involve a self-build component, benefits in the area of skills and employability were nominal.
- Despite this, the community's activism resulted in the publishing of a newsletter and greater self-determination.
- The self-help process resulted in a pleasant livable environment for the inhabitants, something that is extremely rare in Boston's stock of public housing.

Institutional context

- Support at the city, state and federal levels in conjunction with the residents' determination and organization made the initiative a success.
- Because a private development company was responsible for the actual construction, there was no need for outside technical assistance.
- The ingenuity and partnership between grass-roots organizations and different levels of government allowed for innovative financial solutions such as the turnkey development system.
- The presence of well-organized community groups was perhaps the primary reason for the quality of the finished product.
- The initiative met all government and housing industry regulations.

Initiative: **Coin Street Community Builders Cooperative — London, United Kingdom**

Date: Unspecified

Number of units: 26

Source: Lifschutz, Alex. (1995). "The Community Builds." Pigeon Audio Visual.

Summary

This initiative began as an effort to preserve part of the south bank of the Thames River in London. Large-scale commercial development threatened the area which prompted a group of residents to develop a new community and revitalize the neighbourhood. The group formed a cooperative, The Coin Street Community Builders, and began to design and develop a livable community for this dense urban area. This project was undertaken as a self-help development which involved no self-build component. Therefore, the construction was completed by skilled workers using traditional methods of concrete, masonry and timber construction. On completion of the development, 26 high-quality homes had been built. The new neighbourhood also included the construction of stores and parks in order to develop a more livable and varied community. The initial results have been very positive and the design is considered to be a success.

Organization

- The project originated with the founding of an organization called the Coin Street Community Builders.
- The initiative hoped to develop 10 houses and 16 flats.
- The group's mandate was to protect an area of the south bank of the Thames River in London from large-scale commercial development by building storefront shops, parks and housing—to create a livable community.
- The participants formed a cooperative to execute and manage the scheme.

Financing

- The Coin Street Community Builders was incorporated as a charitable organization to raise funding for the initiative.
- The participants formed a cooperative and hence financed the project collectively.

Design

- As the project was executed using standard modern building techniques in an industrialized country, it would likely meet all building codes.
- As the initiative was executed in a dense urban area, it would likely comply with municipal by-laws, given similar circumstances in Canada.
- The competition-winning design is quite refined; it responds both to its participants' desire for high-quality flexible housing and to the goal of building a community.
- The project was designed for both a northern climate and a Western culture.
- As the project was executed for a community group with limited resources, an economic feasibility study was definitely undertaken.

Construction

- The project was purely self-help; there was no self-build component.
- The construction method used concrete, masonry and timber panelling: a system that would lend itself well to the Canadian winter.
- The methods used were standard for masonry and concrete; no adaptation was developed for self-build as the self-help aspect of the initiative did not extend to construction.
- The materials and processes used are available in most parts of Canada.

- As the assembly was executed by a commercial construction company to a high level of finish, quality control standards were likely in place.

Post-occupancy

- The initiative did not include a self-build component, but, as the project was managed under a cooperative structure, no profits were taken outside the building contract.
- One of the explicit aims of the project was neighbourhood regeneration. Although time will determine the extent to which this has happened, the initial prospects look good.
- Both the cooperative structure and the Community Builders organization were maintained after project completion; the former for managing the complex, the latter for further regeneration of the neighbourhood.
- The quality of both the units and the overall scheme in terms of their impact on the lives of the residents would likely have been impossible were it not for the architectural competition and the cooperative structure.

Institutional context

- Although a supportive framework does exist for self-build in Britain, it is aimed more specifically at those involved in actual construction.
- The presence and strength of the community groups made possible the success of this initiative; in fact, they fought and, with a few concessions, won a battle with the local authority regarding the tower component of the design.
- The initiative undoubtedly met all government and housing industry regulations.

Initiative: Cape Breton Labourers' Development Company — Sydney, Nova Scotia, Canada

Date: 1987

Number of units: 5

Source: CMHC (Canada Mortgage and Housing Corporation). (1990). *CMHC Housing Awards 1990: Housing for Young Families.* Ottawa: CMHC.

Summary

The unpredictable employment situation for construction workers in Cape Breton makes acquiring loans in the traditional manner difficult and the prospect of owning a home therefore virtually impossible. In 1987, a group of union workers formed the Cape Breton Labourers' Development Company and started a self-help, self-financing program to assist workers in buying a home. Every member of the group donated $0.25 per hour from their pay to a fund which used the resources to finance the construction of single-family homes. These homes were then sold on a lease-to-own arrangement to workers in need. By 1990, five new homes had been built by volunteer members of the union working for a reduced salary. Not only did this program provide families with new homes, but it also provided temporary work for unemployed members of the group. Before construction began, the buyer was allowed to select the size and style of the new, high-quality detached home. This initiative did not require any government assistance but fell back on the areaís tradition of self-help and community support. An analysis of the groupís funds shows that it can continue to subsidize up to four houses a year.

Organization

- Local 1115 of the International Labourers' Union in Sydney, Nova Scotia founded The Cape Breton Labourers' Development Company to build houses for its membership.

- The union initiated the program because a significant portion of its younger members were unable to get mortgages because of the combined effects of a depressed economy and an industry notorious for its fluctuations.
- The homes are transferred from the company to the inhabitants through a lease-to-own arrangement that requires no down payment and provides below-market rents.

Financing

- The Company administers a benefit plan whereby the union's membership contributes $0.25 an hour to a benevolent fund.
- In addition, charitable donations and interest-free loans are contributed to fund the construction of houses.
- The Company is incorporated as a not-for-profit organization.
- In lieu of interest, the company charges an administration fee of 50 per cent of the land and building cost.

Design

- The initiative was built in Canada and therefore is in accordance with building codes and zoning by-laws.
- The houses built are a very straightforward standard design.
- Built in Cape Breton, the houses are designed for both a Western culture and a northern climate.
- Because of the limited budget, an economic study of the houses was undoubtedly undertaken before the implementation of the program.

Construction

- Despite the fact that the future homeowners were construction workers, in terms of its organization, the initiative can be seen as purely self-help; as such, no specific self-build component was part of the initiative.
- The houses built were standard timber platform frame, the predominant assembly method for residential construction in Canada.
- The materials needed for construction are available throughout the country.

Post-occupancy

- The process whereby the entire union agreed to pay into a benevolent fund to aid those members in need, allowed people who would otherwise have been unable to own a house to do so.
- The union and the Development Company are both permanent organizations.
- As a bonus, building the homes provides construction work for temporarily unemployed workers.

Institutional context

- The program acts independently of any outside assistance.
- The will and initiative of the union made the program possible; the strength of a community network enabled the community to help itself.
- As it was built in Canada by a construction workers union, the initiative meets all government and housing industry regulations.

Initiative: Cardiff Place Co-Housing — Victoria, British Columbia, Canada

Date: 1992

Number of units: 17

Source: Canada Mortgage and Housing Corporation. (1995). *Housing Ourselves Affordably: A Guide to Affordable Housing through Collective Self-Help.* Ottawa: CMHC.

Summary

Cardiff Place is the first attempt at co-housing in Canada. It began in 1992 with the formation of a group of people in Victoria who were looking for a building to renovate or convert into a new housing development. The group found a plot of land that had been approved for condominium development and convinced the developer to convert it to co-housing. The only restriction was that, since the development had already been approved, the group was not allowed to alter the size or shape of the original project. By 1994, the new co-housing development was complete. It consisted of one converted old building and a new building designed to complement the older one. The two buildings were joined together to create a complex of 17 housing units. The main floor provided space for common facilities such as a communal kitchen, dinning room, lounge, play area, workshop and guest room as well as laundry and storage facilities. The upper storeys contained the 17 housing units which varied from small bachelor to three-bedroom units. Cardiff Place provides housing for a diversity of household types and income levels. The affordability of the housing units depends on the desired size; however, most prices are in the same range as those on the open market. The participants in this co-housing project formed a not-for-profit society and, even though the units are now individually owned, the group is still researching ways to create diverse communities and make co-housing more affordable.

Organization

- A group of people got together to create a Danish-style co-housing scheme.
- They found a piece of land that had been approved for condominium development and convinced the owner to convert it to co-housing.
- The group incorporated as a not-for-profit society.
- The units were converted to a condominium strata title after project completion.

Financing

- Because of the strata title form, all participants obtained their own mortgage.
- The initiative operated free of government involvement.
- Each household contributed a 10 per cent-of-unit cost down payment.
- Initially, the group incorporated as a not-for-profit society, but later changed to a strata title.
- During the development and construction phase, the builder carried the construction financing and land cost.

Design

- The initiative was approved and built in Canada, thus, it conformed to all codes and by-laws.
- The project consists of one renovated building and one new building; the two are connected and the main floor is devoted to common facilities.
- Although the building was built in Canada, Victoria has perhaps the mildest climate in the country. For that reason, the applicability of such an approach in the rest of the country would need to be studied.
- Given the organizational and financial structure of the initiative, it is safe to assume that a feasibility study was undertaken.

Construction

- The self-help contribution of the project extended only to organization and financing, with no self-build component.
- Construction was executed in the context of the Canadian building industry.
- As the initiative did not involve a self-build aspect, the construction method was not adapted in any special way.

- As construction took place under circumstances similar to regular development, it is very likely that quality control standards were in place.

Post-occupancy

- Despite their efforts, the final cost of units was similar to market value.
- The not-for-profit society formed to undertake the initiative was, in a sense, transformed into the strata council that oversees the operation and management of the buildings.
- The most marked result of the co-housing process was its capacity to produce units with a wide spectrum of costs and, consequently, to house people with a variety of income levels in the same place.

Institutional context

- Little or no supportive framework existed to help in the execution of the initiative.
- The project was executed without existing community networks or government support.
- The project was developed and built in Canada, therefore, it was in accordance with government and industry housing regulations.

Initiative: Community Corporation — Santa Monica, California, United States

Date: 1980s

Number of units: 12

Source: U.S. Department of Housing and Urban Development (Office of Policy Development and Research). (1987). "Community Corporation of Santa Monica Self-Help Construction Program." *Official U.S. Special Merit Award Projects.* Washington: U.S. Dept. of HUD.

Summary

Santa Monica is a high-density beach-front community just outside of Los Angeles. In the 1970s, an increase in the number of single professionals moving into this traditionally family and elderly oriented community dramatically affected the demand for housing and increased rental costs. Low- and middle-income families were beginning to have difficulty finding adequate housing and many affordable housing communities were being destroyed. In an effort to save their community, residents of two small community groups formed the Community Corporation of Santa Monica.

The first development was a deteriorating and overcrowded, 12-unit apartment block. The tenants no longer felt safe in their homes, and children could not play outside because of the dangerous condition of the building and the high crime levels. Community Corporation bought the building and with assistance from local private and public organizations, and from tenants was able to complete the rehabilitation project. Immediate repairs were made to deteriorated stairwells, railings and plumbing and bedrooms were later added to the units which housed the larger families. The central courtyard, previously used only by drunks and drug dealers, was made into a play and picnic area. In an effort to reduce the amount of crime a second-storey walkway was installed and a crime watch was implemented. The Community Corporation not only improved the livability of the units but was also able to reduce the rental cost by 400 per cent. With the success of their first project, Community Corporation went on to acquire, build and develop several affordable housing units in Santa Monica.

Organization

- The initiative was founded by Community Corporation, a non-profit organization established to alleviate the shortage of low- and moderate-income rental units in Santa Monica.
- This corporation was founded by two neighbour-hood associations in response to the loss of affordable rental housing due to the proliferation of high-end condominiums.

- The Community Corporation, after having built a coalition among local community and business leaders, rehabilitated a dilapidated and crime-ridden apartment complex to make it safe, both structurally and socially.

- On completion of this 12-unit building, the organization remained in existence and went on to both renovate and build affordable housing units throughout Santa Monica.

- In cases where a cooperative was formed by residents to buy a building from the Community Corporation, the profit on future sales of a share of the cooperative was restricted to 10 per cent so units would continue to be available at below-market prices.

Financing

- Administrative financing came from block grants from two federal community development programs.

- Financing came from a private lender and a HUD subsidy to ensure affordability.

- Equity was recognized by the lender in the form of both a trust established by one of the initial founding community groups and the block of federal funding.

- The initiative was managed by the Community Corporation through which financing was accessed.

- The lending institution was impressed by the Community Corporation's well-researched presentation and, despite the fact that they do not usually back such ventures, agreed to fund the initiative.

Design

- The rehabilitation was carried out using standard timber frame construction and would therefore meet building codes in Canada.

- The rehabilitation was executed in an urban/suburban environment and would likely be compatible with zoning by-laws, given a similar context in Canada.

- As a result of a different climate, the design strategy, although thoroughly addressed, might not lend itself to the Canadian context.

- Conversely, the initiative was executed in the context of, and for the use of, a Western culture.

- The thorough research made by the Community Corporation was the reason it managed to get backing from a private lender who would otherwise have been unwilling to become involved with a community development strategy.

Construction

- The self-build aspect of the initiative was extremely cost effective and allowed the residents to carry out the renovation without being temporarily displaced.

- The construction system used was standard timber frame. Despite this, the climate in California is much more forgiving than ours, therefore, its outright applicability to the Canadian context would need in-depth study.

- The renovations were carried out by the occupants who were unskilled in construction prior to this endeavour.

- The materials and equipment needed to execute timber frame construction are widely available throughout Canada.

- For the most part, finishing was carried out by the inhabitants themselves, thus quality control was a result of what they were willing to live with.

Post-occupancy

- Those involved in the initial project vastly improved the quality of their units and reduced their rents by as much as 400 per cent. (This profound change in affordability was primarily a result of federal support.)

- The courtyard that was once inhabited by drug dealers and drunks was redesigned with picnic tables and a playground; in addition, crime watch was instituted and the design oriented in such a way as to allow residents to monitor outdoor space around their units.

- Both the Community Corporation and the less formal neighbourhood ties that resulted from the self-build project remained in existence after its completion.

- Both socially and financially, the self-build process produced results that the residents feel would have been impossible under traditional development circumstances.

Institutional context

- Although no framework specific to self-build aided in the development of the initiative, the federal grants for the community development were root causes of its success.

- No public facility for technical assistance was available to the project, but the construction firm hired to oversee the project worked with the self-builders in its execution.

- Although the Community Corporation was founded using federal money, it is currently working to become independent of all public sector support in the hope that should federal funding cease, the Corporation alone can continue to provide affordable housing in Santa Monica.

- Both the two founding community associations and the coalition of local businesses that resulted from the inception of the Community Corporation were the foundation of its success. As such, any initiative resulted from incorporated community action and could not have acted independently of it.

- The initiative met all government and industry housing regulations.

Initiative: The Incremental Development Scheme — Pakistan

Date: 1980s

Number of units: 3,000

Source: Siddiqui, Tarneem A. and M. Azhar Khan. (1994). "The Incremental Development Scheme." *Third World Planning Review.* 16 (3), August, pp. 277-291.

Summary

Pakistan is a country with a significant housing problem. During the years between 1941 and 1951 a large influx of refugees arrived in Pakistan, and because civic agencies were inadequately prepared for the arrival, refugees were forced to squat on municipal land and in abandoned houses. Living conditions were terrible and most of the refugees were in the low-income range. Several government and private-initiated efforts were made to house these people; however, all failed. The only programs which proved to be even slightly successful were illegally run on unowned land. In 1984, the Hyderbad Development Authority (HDA), a newly formed government housing agency, launched its Incremental Development Scheme. This new plan took aspects from the partially successful illegal development and put them into practice on a legal plot of land just outside the city of Hyderbad. Each plot of land, which included a communal water supply and transportation into the city, was sold at an affordable price to a needy family. Other amenities such as water and sewer systems, roads, electricity and gas were available once the allottee had enough funds. Earlier programs had often failed because the inexpensive land was often sold unknowingly to speculators or investors. To avoid such problems, buyers were required to stay a while in the reception area with their family and all their possessions. Once a plot of land was purchased, the family was required to begin building a house immediately and was

encouraged to do so by withholding the ownership documents until construction was completed. There was no restriction on the type or style of house, and model plans were available. By 1986, 3,000 plots were allocated; however, as political tensions rose in the area, several families abandoned their plots. Eventually, the uncertainty of the situation slowed and by 1992 people started to return to their homes in the development. Schools were built, private doctors, bus services and shops were available. To create jobs, carpet looms were purchased. Although there are still several problems with the development (several inhabitants have not paid their deposits, there are often conflicts over leadership and there still are some illegal subdividers) it is still considered to be fairly successful. The scheme managed to reach its target group (often a problem in previous projects) and seven years after the initial development, 86 per cent of the houses have a water supply and half of them have electricity.

Organization

- The project was initiated by a junior government agency.
- It seeks to provide housing in a way similar to illegal subdivisions—a sites and services approach.
- The project begins by providing a large number of sites with communal water supply and transportation to the nearby city.
- Occupants are responsible for building on and inhabiting their sites as they see fit.
- Each household must pay a monthly fee which goes into a fund (at the level of the block or sector) that pays for further infrastructure as it can be afforded.
- Because speculative and for-profit investment drives prices up and prevents housing from being available to those who need it most in Pakistan, if sites are found vacant (used for purposes other than shelter) they are given to another household.

Financing

- All occupants are responsible for the financing of their own dwellings, and the occupants are collectively responsible for infrastructure.
- As a result of location and the large number of sites available, there was no premium on their sale: this was a deliberate measure to prevent investment buying and to allow housing to go to the poor for whom it was intended.
- Aside from land, minimal infrastructure (communal water and dirt roads) and transportation, the project is free from government subsidy.
- Occupants can both individually and collectively build as they can afford it; because they have land, each household can finance itself as it goes along.
- The fund for each sector to pay into its future infrastructure is managed by the responsible government agency.

Design

- As there is no restriction on building, almost all construction would fail to meet codes of any kind.
- For the same reason, it is very unlikely that the project would be compatible with any municipal restrictions.
- The initiative is not designed for a Western culture nor a northern climate.
- As all inhabitants build what they can with what they find or can afford, no economic feasibility study was made of construction; despite this, the project from the standpoint of a government program accomplished much more for a fraction of the cost of other housing programs.

Construction

- The capacity of participants to procure building materials and execute the construction of dwellings independently of government assistance is what makes such a sites and services scheme possible.
- The shortfall of such a scheme is of course that no quality control or guarantee of safety is possible; as such, there is no means of determining the applicability of a construction method to local conditions.
- With regard to the availability of resources, buildings are assembled from what is immediately available.

Post-occupancy

- Although developing world standards of construction might seem archaic, this scheme is remarkable in that it actually provides a means by which those who need housing most can access it.
- Previously in Pakistan, unrealistic housing standards and the inability of government housing to meet the needs of the target group resulted in the burgeoning of illegal development.
- This project provides people, able to live only at a subsistence level, with a minimum level of organization and infrastructure from which they can easily improve their situation.
- Problems as the scheme progressed were addressed as they arose; the agency responsible was flexible and willing to learn as it went along.
- Because occupants were responsible for both their dwellings and the neighbourhood as a whole (the paving of streets for instance), the success of both depended on the efforts of each individual sector.

Institutional context

- The government provides access to technical expertise for the execution of infrastructure by managing finances and overseeing the bidding process.
- The government provides land and organization, but no direct financing.
- The organization of the community as a whole and at the level of each sector proved to be one of the greatest challenges the project faced; although at times the community was able to act on its own behalf, its ability to do so was consistently hindered by self-appointed leaders with questionable motives.
- Perhaps the clearest drawback of the project was its failure to aid the participants in organizing themselves for the purpose of self-management.
- The relaxing of housing regulations that are unrealistically high makes possible such sites and services schemes.
- The housing industry is not organized in Pakistan to the extent it is in Canada. As a result, it is unlikely that regulations exist or are taken seriously to the degree that they might impinge on such a project.

Initiative: Asociacion para la Vivienda Popular (AVP Foundation) — Bogota, Colombia

Date: 1980s

Number of units: 4,000

Source: Ospina, Jose. (1985). "The Self-Help Housing Movement in Columbia." *Open House International*. 10 (4), pp. 34-39.

Summary

The housing situation in Columbia is typical of many developing countries. A severe lack of adequate low-income housing has developed because of a dramatic increase in population

growth, a high rate of unemployment and rising land costs. Although efforts have been made by government organizations to alleviate the housing crisis, because of the poor quality construction and lack of funding, they have done little to improve the situation. Community councils and cooperatives have assisted the low-cost housing development; however, they are significantly restricted by government control and legislation. Self-build has become a popular option for low-income families. In 1982, a group of radical priests, housing activists and professionals founded the Asociacion para la Vivienda Popular Simon Bolivar (AVP). With money from members' savings, the group managed to purchase land on the outskirts of Bogota. Four thousand low-cost dwellings were constructed with financial assistance from private loans for the building costs. The development focussed around open areas and community facilities such as recreation areas, health centres and community centres. The three-bedroom flats were priced at up to half the cost of commercial developments. In order to create such low costs, the AVP used self-help labour, on-site manufacturing of materials, and no profits were made although the technical staff received a fixed wage.

Organization

- The project began with the founding of the Asociacion para la Vivienda Popular Simon Bolivar by a radical think-tank of priests, housing activists and professionals.
- Its goal was to develop housing for its membership.
- A technical team managed the development in close connection with the members' elected representatives.
- During the actual development of the project, the administration was in the hands of the technical team and, on completion, it was handed over to the members' organization.
- No post-occupancy tenure was required.

Financing

- The entire project is funded through savings and private loans from the membership.
- The organization and many like it deliberately refuse government financing to avoid restrictions imposed by cooperative legislation.
- The foundation does not finance itself collectively, but is funded through the resources of its members.
- The group is incorporated as a not-for-profit foundation.

Design

- As the project was initiated in a country whose building industry, needs and culture are drastically different from our own, it is very unlikely that the housing built would be compatible with Canadian building codes and municipal zoning restrictions.
- The initiative was not designed for a Western culture or a northern climate.
- As the foundation's ability to provide housing for its membership depended on the economical use of resources, it was essential that economic viability was established in advance.

Construction

- It was estimated that the highly organized self-build contribution of the membership resulted in savings as high as 50 per cent.
- It is difficult to assess the applicability of the construction method to scenarios in Canada; although standard concrete and concrete block technologies were used, the climate and building industry in Canada are drastically different from those in Colombia.
- The formwork methods developed using metal shuttering can be executed quickly by unskilled labourers.
- The materials and methods used are readily available throughout Canada, except perhaps in extremely isolated areas.

- Although quality control is not mentioned in the information provided, the development of technologies specifically designed for self-build in conjunction with an expert technical team leads one to believe that the project was well executed.

Post-occupancy

- It was estimated that the average savings for participants when compared to conventional housing was 50 per cent.
- The project was developed as its own community on the outskirts of Bogota. As such, the quality of its design will dictate the success of the neighbourhood that results.
- The members' organization that acted as liaison between the technical team and the membership took over administration after project completion.
- It appears that the project in its current form would not have been possible without the self-build contribution.

Institutional context

- A framework exists that regulates and funds non-profit housing, but the regulations are often restrictive so, in this case, the group chose to act independently of that framework.
- The initiative operates deliberately free from all forms of government intervention.
- The members' organization, likely formed under the guidance of the think-tank, makes possible the execution of such a large initiative (4,000 dwellings).
- It seems unlikely that the initiative would be entirely compatible with Canadian government and housing industry regulations, particularly with regard to the on-site production of materials and the large scale of the self-help contribution on a project of this magnitude.

Initiative: 10th of Ramadan Core Housing Scheme — 10th of Ramadan, Egypt

Date: 1980s

Number of units: 9,800

Source: Wilkinson, Nicholas and Hala Kardash. (1992). "Development within Development: Distribution of Responsibilities in Aided Self-Help in Egypt's New City Settlements." *Third World Planning Review,* May: 161-192.

Summary

During the mid-1970s Egypt, recognizing the need to deal with the country's increasing housing demand, developed a new cities policy. The plan was to construct new cities outside the Nile Valley in order to relieve the strain of the densely populated cities and to reduce the use of agricultural land to housing. Most of these new cities used traditional public housing methods; however, some experiments were more focussed on resident involvement. One such experiment was the 10th of Ramadan New City built during the 1980s. The government constructed initial "core houses" which were then sold to low-income families who could finish them themselves. The initial construction was of load-bearing brick walls on strip foundations and provided a room, open kitchen, bathroom and entrance in a 25-square-metre space. The houses were accompanied by a predetermined plan for their future expansion and development which accommodated three additional rooms and a courtyard. While residents were required to follow this plan, in most cases, they adapted the house to suit their particular needs. Many families even added a second storey even though the foundations were built to support only one. The organization process of the new city is the responsibility of the local authorities and professionals; however, the construction process, technical services and financing were the responsibility of the owners. As a result, many

controls and restrictions went unfollowed and an ununified community developed with a rich social and cultural mix. This development was an embarrassment to the Egyptian government and foreign visitors were banned from visiting the project. However, others have praised the new city for its variety and diversity of construction methods.

Organization

- The project was initiated by the government on the advice of providers of foreign aid.
- The initiative set out to build core housing as opposed to the standard government five-storey walk-up blocks.
- The 10th of Ramadan is a new city built by the Egyptian government; the core housing accounts for roughly 30 per cent of the housing stock.
- Although the actual construction is managed by the occupants, the primary organization is carried out by the government and local authority, and the user is conspicuously absent from the process.

Financing

- Participants buy the core house from the authority and, if they complete it as prescribed, qualify to have that completion cost covered by a foundation provision fund.
- In most cases, occupants chose to ignore the prescribed plans and fund the completion of the dwelling themselves.
- Inhabitants are required to provide a down payment for the land and the core house, and then must repay in small installments over 30 years.
- As the participants buy directly from the authority, no legal framework is necessary.

Design

- As the initial core house provides only a room, a kitchen and a toilet, it is unlikely that such a scheme would meet building codes in Canada.
- Because core houses are incomplete, it is unlikely that they would comply with municipal by-laws, particularly in areas that restrict unfinished construction and regulate time of construction.
- The design concept was in fact quite poorly addressed in that future occupants were expected to complete dwellings according to plans on which they had absolutely no input.
- The project's applicability to the Canadian context would, due to the difference in climate and culture, have to be questioned.
- No economic study was made and, as a result, frequently the funding for completion would run out after only the first stage of construction.

Construction

- The project was not strictly self-build; in most cases, inhabitants contracted out the labour for dwelling completion.
- Due to extreme differences in climate, the construction method would be inappropriate in the Canadian context.
- Responsibility for quality control would fall on individual participants.

Post-occupancy

- Despite its shortcomings, the project made homeownership available to people who would otherwise be unable to afford it.
- The government was so disappointed with the results of the new city project that it prevented foreigners from visiting the city and consider it a slum.
- Despite this, as the core housing accounted for less than a third of the housing provided, it cannot be blamed for the urban quality.

- In fact, in comparison with other projects, the core housing scheme was remarkably successful, even though it did not go as planned.
- No organizational structures were formed by the participants.
- In a sense, the government saved significantly by turning over dwellings unfinished.

Institutional context

- The organizational structure established by the authority had, as its primary aim, the execution of this project; despite this, one questions the experience and expertise brought to the initiative.
- After the completion of the initial core house, no technical assistance was provided.
- The initial structure of financial provision, which was one of the initiative's strengths, was undermined by poor planning of the actual execution of dwelling completion.
- Because involvement in actual construction was the exception (most occupants contracted out the labour component), housing industry regulations were met without exception.

Initiative: Sites and Services Scheme — Villivakkam, Madras, India

Date: 1980s

Number of units: Unspecified

Source: Robben, Pieter J.M. (1986). "Open Plot Development: Sites and Services, Madras India." *Open House International.* 11 (3): 13-19.

Summary

Madras is a typical Indian city with a severe housing problem. Although redevelopment programs have been initiated to control the expansion of illegal settlements, the rapid population growth in the city made any such effort appear futile. The Sites and Services Scheme was initiated and funded primarily by the World Bank. The main focus of this development was to house the low-income households not the absolute poor. The scheme offered participants a choice of either a small empty plot, a plot with a constructed core house or a plot with an erected low-cost house. While these options were originally meant to reflect familiesí needs, income inevitably ended up being the deciding factor. The assumption was that low-income households would be able to build their own houses after work and on weekends; however, most families ended up hiring a contractor, labourers, masons, carpenters, plumbers and electricians. Materials were also bought in the traditional method of building construction. The anticipated savings from the self-build aspect of the project were therefore very low. Many families could not even afford to build a home and many plots remained empty creating an occupancy rate of 20 per cent. Although this plan seemed simple in theory, in practice the success of the development is disappointing.

Organization

- The project was initiated by the World Bank.
- It hoped to house a large number of people using a sites and services approach.
- As such, housing plots at various levels of completion and the infrastructure needed to support them are made available to people of moderate to low incomes at affordable prices.
- The project was administered by a local housing authority on behalf of the World Bank.
- Participants who could only afford serviced plots (as opposed to core dwellings) could build temporary shelters but were required to erect permanent dwellings within a specified period.

Financing

- The World Bank was the primary financier of the project.
- Participants were required to finance the construction of their dwellings themselves.
- These moneys were expected to come from savings or commercial money lenders.
- In fact, this financial framework was unrealistic and it resulted in vacancy rates as high as 80 per cent among the lowest income earners.
- It was concluded that the project was naive in thinking that the extremely poor could afford to build their own dwellings to the standard required in the time allotted without financial assistance.
- The only loans available were through commercial money lenders at extremely high interest rates.

Design

- The standards of both construction and urban organization would fail to meet even the most lenient codes and by-laws in Canada.
- The concept whereby housing plots are made available to a broad range of income groups by providing various levels of dwelling completion was unrealistic, in that those unable to afford a subsidized core dwelling were less likely to be able to afford to build their own dwelling over time.
- The cultural, climatic and economic context in which the scheme was executed make the possibility of its application in Canada negligible.
- No economic study was made, otherwise the flaws regarding the target group would have been recognized.

Construction

- It was concluded, as a result of the lack of both time and technical expertise on the part of the participants, that most dwellings were built with the significant assistance of informal commercial builders.
- As a result, self-help cost savings were disappointingly low.
- The means of assembly would be inappropriate in the context of the Canadian winter.

Post-occupancy

- As a result of both the length of time taken to complete dwellings and the need to use commercial builders, few participants moved into their homes at a reduced cost.
- The urban character of the neighbourhood was undermined as a result of low occupancy of sites.
- The fact that no organized framework was maintained throughout the execution of the project was one of the primary reasons for its lack of success.
- Because of the need for commercial builders, the capacity of the self-help process to increase the skills and employability of those involved was negligible.

Institutional context

- Other than the board established by the authority to manage the execution of the project, no framework existed to facilitate self-build.
- The lack of such a framework was cited as the primary reason for the difficulties encountered by the project.
- No technical support was made available to the participants.
- Although housing regulations were relaxed for the project, it was felt that further leniency would have prevented the extreme vacancy rates among the very poor.

Initiative: **Land Share Self-Build — Manangkasila, Bangkok, Thailand**

Date: 1980s

Number of units: 197

Source: Duivestei-Teijn, Adri. (1994). "Bangkok." *The Hidden Assignment: At Home in the City.* Rotterdam: Nai Uitgevrs.

Summary

Manangkasila is an example of landsharing which developed in Thailand during the 1970s to accommodate the influx of people from the countryside who were settling illegally on urban land. This initiative allowed settlers to purchase or rent a portion of the land for a reduced price. However, in return, the remaining land was returned to the owner to develop. In the case of the Manangkasila development, settlers had claimed a space of land which the owner had decided to develop and wanted to clear. After several court battles and disturbances, a compromise was made between the two parties. The owner received 60 per cent of the land to construct a commercial development of dwellings and workshops. The remaining 40 per cent was rented to the settlers at a cost below the market value. Although the population density increased significantly, the quality of the plan was not sacrificed. Along with an architect, the new renters financed and constructed a self-build neighbourhood. Dwelling plots ranged from 20 to 40 square metres and 197 narrow three-storey, back-to-back rowhouses were erected. Renters had the option of an open or closed facade and of turning the first floor into a mezzanine. Several of the middle-class inhabitants chose to leave the front open and run a small business out of the home. Residents still continue to develop and add to their own basic dwelling creating diversity in the community.

Organization

- The initiative was set up according to the concept of landsharing whereby people illegally occupying land agree to give back part of the land in exchange for which they have the right to rent, buy or gain control of the remainder of the land.
- Should they rent or buy the land, they receive the right to do so at below-market value.
- As the Thai economy began to flourish, a disused tract of land that was being illegally occupied for the purpose of housing was rented to a project developer who wanted to clear it.
- The inhabitants fought the developer in court on a number of occasions; eventually a landsharing agreement was reached whereby the former inhabitants gained the right to rent 40 per cent of the land.
- As a result, they were forced to hire an architect and build new, more dense housing, as they now had less land.
- The inhabitants organized themselves and acted on their own behalf; no post-occupancy tenure was required.

Financing

- The participants were entirely self-financed.
- As their legal position was rather precarious, it is unlikely that they would have been eligible for financial support of any kind.
- In a sense, the inhabitants' illegal occupation of the land was their only leverage position; thus, it can be seen as a potential source of equity.
- As an architect was hired to design rowhousing for the inhabitants on less land than they originally occupied, and the participants gained the rights to that land collectively, it seems very likely that the project was financed as a collective.

Design

- It seems very unlikely that such a scheme would meet building codes and municipal zoning regulations in most parts of Canada.
- The design concept was remarkable, both in terms of its spatial and budgetary economy, and in its capacity to provide a flexible environment in which the rich local culture could flourish, particularly at the urban scale.
- The initiative was not designed for a Western culture or a northern climate.
- Because of the limited means of the inhabitants and economy of the design, it is very likely that an economic study was made of the project.

Construction

- The self-build aspect undoubtedly made the project possible.
- The heavy timber construction method used is quite flexible; despite this, given the climate in Thailand, it is unlikely that this method as executed would be sufficient in the context of the Canadian winter.
- The initiative was designed to be built by its occupants; as such, the assembly could likely be executed with a limited skill level.
- The heavy timber method could likely be executed in most areas, yet depending on the circumstances, transportation of materials and availability of machinery could pose problems.

Post-occupancy

- Self-build undoubtedly reduced the cost of dwellings and, in fact, may have resulted in the margin of affordability that made the project possible.
- The sensitive and economical design of the new dwellings, in contrast to both the original ad hoc sprawl and the adjacent new development, adds greatly to the neighbourhood.
- Because the sole purpose of the initiative was the procurement of individual row housing within the existing lines of infrastructure, it appears as though the maintenance of formal networks would be unnecessary.
- The quality of the dwellings and the urban spaces they created are remarkable, particularly considering the meagre means of the participants; as such, self-build can be said to have provided staggering results.

Institutional context

- Because of the precarious legality of the initiative at its inception, outside support seems very unlikely.
- One cannot know whether community networks existed before the battle with the developer; however, their strength both in organizing and in executing the project is undeniable.
- As a result of a vastly different governmental structure and building industry, the initiative would fail to meet standards regarding both.

Initiative: Self-Initiated Self-Build — New Gerala, Khuzestan Province, Iran

Date: circa 1980

Number of units: 20

Source: Pour, Ali R. Madani. (1988). "Design and Change: The Case of Rural Settlements in Iran." *Open House International.* 13 (4): 29-35.

Summary

The Khuzestan Province in Iran is a dry plain inhabited by nomadic peoples who live in small villages and hamlets with distinct housing needs and traditions. The residents live close to their animals and the houses consist of several rooms surrounding a courtyard. The separation of public

and private space is very important in this culture and this importance has developed into a tradition of using a guest room as the only room with a window to define this boundary. The original settlement of Geraia, which housed 20 families, was located four kilometres from the nearest water source. When an irrigation system was placed along the nearest road, the settlement decided to build a new hamlet closer to the road and water source. This new initiative was designed and planned by the heads of the families and used common patterns and traditional views. The houses, constructed of mud walls and wood roof beams, were built around a central public square and the guest rooms separated the private homes from the communal space. The entire hamlet was built in a few months with the community working together. Over time, the hamlet has developed and changed. The road has been the major influence and has caused several families to move their houses along the road which in turn deteriorated the sense of a central community space, creating a linear development.

Organization

- The project was initiated by the people of Geraia; they abandoned their old hamlet because of lack of water.
- They sought to build housing for their small village of 20 families to accommodate themselves and their livestock.
- In the patriarchal Iranian society, the senior male heads of families do the decision making for the entire village.
- They met in the village leader's guest or public room to discuss, plan and design the new village.
- As there is little or no economic value in the houses that were built and the culture dictates that families remain together, a requirement on post-occupancy tenure was unnecessary.

Financing

- The initiative was financed entirely by the families of the village.
- The village was constructed entirely by its inhabitants with materials that were gathered, bought or made.
- The project was executed independently of government financing.
- The project was built in the desert; it is unlikely that land had to be bought; it was simply inhabited.
- As financing was minimal and the community so tightly woven, a legal framework would have been unnecessary.

Design

- The village was built primarily of mud and straw; as such, it would fail to meet Western building codes and municipal regulations.
- The design concept is unusual in terms of the subtlety with which the village accommodates the lifestyle of the inhabitants; both their need for extreme privacy and a vital public realm (the main street) are provided for without neglecting the importance of livestock in the daily lives of people.
- The village was designed neither for a Western culture nor a northern climate.
- As most materials were found or made, an economic study would not have been made.

Construction

- Self-build was the only option available to these people.
- Their construction method using mud brick, straw and wood is only possible in an arid or semi-arid region.
- The technique of making mud bricks and straw/mud roofs is specific to these climatic areas; even if it was applicable, the necessary expertise needed to execute a project using this technology would be unavailable.

- Quality control in such a scenario depends on what the inhabitants are willing to tolerate; usually the public guest room buildings are given the greatest amount of care, while shelters for the animals are the most roughly finished.

Post-occupancy

- The sophistication the people of the village achieved in terms of the creation of a physical setting that provided for their needs was remarkable; in fact, despite their lack of technological innovation, lessons might be learned from this project in the area of regenerating neighbourhoods.

- The committee of family heads that guided the project existed prior to its construction and is a permanent decision-making body.

- The people of the village are cattle herders; as such, increased skills and employability were not the projectsí goals.

Institutional context

- The village was constructed free from government assistance of any kind.

- Although as a means of governing, we may find the committee of family heads archaic, its ability to plan and execute the project successfully was impressive.

- The construction method is quite primitive and would fail to meet regulations of any kind.

Initiative: Campos do Jordao — Sao Paulo, Brazil

Date: Unspecified

Number of units: Unspecified

Source: Salas, Julian. (1988). "An Analysis of Latin American Auto-Construction: A Plural and Mass Phenomenon." *Open House International.* 13 (4): 2-11.

Summary

The housing problem in Brazil is similar to that of many Latin American countries. An overwhelming number of people live in shelters constructed on unstable land with industrial and natural waste materials. These poor living conditions create high health and security risks for their inhabitants. Self-build has a long tradition in Latin America and has recently been initiated and financed by government organizations and private companies. In Brazil, the Technical Research Institute (IPT) of Sao Paulo has initiated a program of self-build homes. The company is involved in the development of reforested wood for housing and has manufactured home building kits. These kits can be purchased by an unskilled buyer and easily erected on site. Most are duplex houses which can be adapted to suit most surfaces. The feasibility of the initiative depends on the buyer's ability to purchase the kit, acquire suitable land to build on and assemble the kit.

Organization

- The project was not a grass-roots initiative, it was led by the Technological Research Institute of Sao Paulo which works with reforested wood for housing.

- With the help of specialists, occupants built their own dwellings using a kit of parts.

- The occupants did not form the organizational structure, but worked within the structure established by the Technological Research Institute.

Financing

- The financial framework for the project is unclear.

- Despite this, the government provided infrastructure and possibly land.

- As participants worked within an organizational context established for them by the Technological Research Institute, it seems likely that the Institute was involved in financing to some extent.

Design

- Because the design originated from a quite sophisticated source, aside from considerations of climate, it seems likely that the initiative would meet building codes.
- The design is responsive to urban structure and, depending on the circumstances, would likely meet most municipal zoning regulations.
- It appears as though the kit of parts is a refined concept, both in terms of its responsiveness to external factors (urban structure, site conditions) and in its applicability to self-build.
- The scheme was designed for neither a Western culture nor a northern climate.

Construction

- The feasibility of the initiative seems to depend on people being able to assemble the kit of parts with ease.
- The construction method seems very flexible; although given its place of origin, it is unlikely to respond to the needs brought on by a Canadian winter.
- The initiative is specifically designed to be assembled by unskilled labourers.
- The construction method being timber and for use by the unskilled, is flexible enough to be adapted to most regions of the country.
- It does not appear that any quality control standards were in place.

Post-occupancy

- The supportive framework established by the Research Institute was both the stimulus and the means of facilitating the project.
- It appears as though the self-build contribution was what allowed participants to own their houses.
- The organizational structure existed solely for the procurement of housing and dissolved upon completion.
- From the outset, the dwellings were designed to be assembled by their inhabitants and the results seem favourable. A comparison with conventional build is difficult; despite this, had conventional build been an option for those who participated, it seems unlikely that they would have chosen this option. Self-build allowed them to become homeowners.

Institutional context

- The technical support of the Technical Research Institute made the project possible.
- It is unclear as to the degree that financial aid made the project possible, but it seems likely that it did so to some extent.
- All organizational frameworks were put in place from outside; as such, the project functioned in the absence of community networks.
- Despite the already mentioned issue of climate, the project would likely meet government and housing industry regulations; a kit of parts approach has been used in Canada before.

Initiative: Balcarres Street Self-Build — Edinburgh, Scotland

Date: 1989-1993

Number of units: 6

Source: Roberts, Duncan. (1995). *Self Build for Rent: A Pilot Project.* Edinburgh: Scottish Homes — Research and Innovation Services, May.

Summary

The Balcarres Street Self-Build was initiated by a non-profit advocacy organization in Morningside,

Edinburgh, Scotland. The focus of the program was to provide unemployed youth with construction skills and experience and to respond to the local need for quality affordable rental housing. Fourteen young people were organized as a group and the members attended several courses and seminars on construction methods and development issues as well as administrative aspects of the building industry. They also visited and studied completed self-build initiatives in England and Scotland. Participants then built a show home to develop and prepare their skills for the permanent construction. The show home was completed in a short time and the participants were proud of their initial accomplishment. However, agencies and consultants still lacked the confidence in the construction method and the group was forced to change from the Segal method to timber kit construction. After a lengthy process a plot of land was finally purchased and financing was secured. The group registered itself as a limited company in order to be paid a weekly wage. Construction began in April 1992 with only four remaining participants none of whom were a part of the original group formed in 1989. Four flats and two houses were built by the spring of 1993 and two of the workers moved in. The construction aspects of this self-build project were successful; however, much can be improved on in terms of the delays caused by organizational, legal and financial issues.

Organization

- Initiated by a non-profit advocacy organization which registered as a housing association to access capital grant funding and manage property over the long term.
- Also incorporated as a workers' cooperative so participants would be eligible for weekly income through a training allowance program.
- The primary objective was to develop skills to address high poverty and unemployment among youth while providing affordable rental stock.
- The participants were unemployed youth who lacked the necessary organization skills to self-initiate the process.

Financing

- A significant capital grant and financing was accessed; the participants did not have the resources to undertake this initiative without financial assistance.
- Of capital financing, 72 per cent was provided through national government housing funds (Housing Association grant); the remaining 28 per cent was financed with a mortgage from a building society.
- Loan security was provided by the large equity grant and the strong track record of the overseeing housing association.

Design

- Through the planning process, the group explored a variety of building methods, seeking to optimize training opportunities and select a practical construction method amenable to relatively unskilled participants.
- A relatively simple construction technique (Segal method) was explored but rejected as too unconventional (a concern to lenders); a standard timber frame technique was selected instead.
- The selected design met all building codes and standards.
- The building form was consistent and compatible with the neighbourhood.

Construction

- A multiple building form of four flats and two terraced houses was constructed.
- A construction manager was contracted by the overseeing association.
- The construction manager provided site supervision for trainee participants.
- Skilled sub-trades were used for technical aspects.

- Prefabricated wall panels were used to minimize measuring and cutting lumber.
- Materials were often supplied at reduced cost from local suppliers due to publicity about the project.
- The construction period was prolonged; to remedy this situation, additional skilled sub-trades were hired to ensure completion.
- The final costs were not very different from trade-built houses; there were additional training and overhead costs associated with the primary training and capacity-building objectives.

Post-occupancy

- The development became part of the portfolio of the sponsoring housing association, with rental tenure.
- The option of a cooperative was rejected as it would have been to the disadvantage of the participants (they would not be eligible for tax relief—mortgage interest deductibility).
- Due to the beneficial contributions of a higher standard of insulation, energy costs are lower than normal.
- Only two of the six units were occupied by the participant trainees.

Institutional context

- A government funding program explicitly recognizes and funds self-build.
- A large infrastructure of self-build associations exists in the United Kingdom to provide technical guidance.
- Significant training/unemployment assistance funds supported the training aspect.

Initiative: Livinston Self-Build — Edinburgh, Scotland

Date: 1982-1983

Number of units: 12

Source: Fitzpatrick, Lawrence. (1992). *The Work of A Self Build Group: A Practitioner's Critique.* Glasgow: The Planning Exchange.

Summary

In 1982, a group of self-builders with diverse backgrounds and skills got together in Edinburgh and developed a program to construct 12 bungalows. The group researched other self-build developments and discovered the main problem was the amount of time expended to complete the project. They therefore decided to restrict the construction time of their development to only six months. The group formed the Livinston Housing Association Limited and acquired a loan to purchase a three-acre plot of land. A design scheme was initiated and the group decided to use a timber frame construction method which was supplied and erected by a local company to save time. Self-employed brick layers and roof tilers were hired; however, the rest of the work was done by the group members themselves. The group met every week to discuss construction issues and make decisions regarding the development's process. The group's objective of constructing quality low-cost homes in a short time was realized, and it was satisfied with its achievements. Each member then purchased a house and land from the Association and completed the interior finishings. Ten years after the completed construction, the development continues to prosper, even though five of the original owners have moved on.

Organization

- Totally community based: a semi-skilled and professional group.
- The primary objective was to construct higher quality housing at a reasonable cost.
- Initiated by a housing professional who

recruited other professionals with a range of required skills.

- Registered as a building association to facilitate financing and organization but dissolved on completion.

- Structured to take advantage of tax relief on the construction loan, as well as to avoid paying transfer taxes on land both on initial acquisition and subsequent subdivision and transfer to individual members.

Financing

- Each participant provided an initial loan payment to cover initial costs (site survey and registration).

- Secured a construction loan on the basis that each participant qualified for an individual takeout mortgage on completion.

- The property was subdivided to create individual titles, and each household took on the responsibility for payments of a conventional mortgage loan.

Design

- The plan was to develop modest single-detached bungalow homes for each participating household.

- Potential for each household to make design modifications to the basic plan.

Construction

- The group deliberately focussed construction on a limited period of six months to ensure timely completion.

- Twelve detached bungalows were erected on 0.1 hectare (quarter-acre) lots.

- Timber frame construction complied with all applicable building codes and regulations.

- The group included a skilled electrician, plumbers, quantity surveyors and engineers, so the use of sub-trades was minimized.

- The participation of quantity surveyors as group members assisted in costing construction and ordering supplies.

- The group acted as its own general contractor and site supervisor (taking turns sleeping in a trailer on site).

Post-occupancy

- The participants met their goal of producing a higher-quality accommodation at lower cost than houses on the market.

- Dissolved the building association.

- The construction loan was repaid as individuals took title to and mortgaged their own parcel.

- Ten years later, five of 12 sold and moved on; the other seven original builders remain.

Institutional context

- Institutional context provides a land title system that enables pledging property as a loan security for mortgaging purposes.

- A broad network of technical resources was available, though not required in this initiative due to expertise within the group.

- The group was completely self-funded (including initial cash loan contribution) and was able to secure private financing.

- The familiarity of the lending institution with self-build techniques assisted in securing financing for the construction loan.

Initiative: **Zenzele Self-Build Association — Bristol, United Kingdom**

Date: 1983-85

Number of units: 12

Source: NFHA (National Federation of Housing Associations). (1988). *Building Your Future: Self Build Housing for the Unemployed.* London.

Summary

The Zenzele Self-Build Housing Association is a group made up of mainly young, unemployed black people. The group, with the assistance of other organizations, developed a plan that would give the participants the work experience necessary to find a job. The initiative also benefited the participants by providing them with a home they could be proud of and the financial security of owning a home. The project was also initiated to show the more disadvantaged members of society that the possibility of owning a home can become a reality. The group was formed in 1983, a plot of land was purchased and construction on the site began in the spring of 1984. The group decided to construct a two-storey building that would house 12 units. The layout and size of each flat was fairly similar to avoid any argument over allocation. Each unit contained a kitchen, dining room and living room which were left open in order to maximize the usable floor area. The unemployed self-builders worked during the week and those who were employed worked weekends, evenings and holidays. The project took one year to complete and by, the end of construction, 11 out of the 12 participants had found employment. The project was determined to be a success. The only drawback which developed was that participants eventually found that they required larger accommodation. However, even this can be seen as a success since several of the participants had acquired the means to consider buying a larger home.

Organization

- Initiated from within the community by a youth worker involved with ethnic youth.
- Focussed on unemployed and poor households but was not undertaken as part of a training program.
- Incorporated and registered as a housing association.

Financing

- Construction financing provided by the Housing Corporation.
- On completion, a private lender provided individual mortgages to cover repayment of the construction loan.
- The lender recognized the lending value based on 65 per cent of anticipated market value.
- The Department of Social Services (DSS) acted as the loan guarantor in committing to maintain the housing benefit at a level sufficient to cover the participants' share of mortgage interest while they remained unemployed.
- Unlikely that the group could have undertaken the initiative without the benefit of DSS and Housing Corporation involvement.

Design

- Twelve apartment units of very modest design and size (39 square metres).
- A professional designer assisted in the design and the securing of permits.
- The design was kept simple with limited variation between units; living, sleeping and kitchen areas were designed as a series of interlocking spaces to maximize usable floor area.

Construction

- Twelve apartment units in a single two-storey structure of rendered blockwork walls with simple pitched roof.
- A quality surveyor acted as construction manager and the group also retained a site supervisor to provide guidance and site supervision to the self-builders.
- Two group members were semi-skilled, the others relatively untrained in construction methods.
- The employed participants worked part-time, weekends and evenings; the unemployed worked during the week (and remained eligible to collect unemployment benefits).
- The project was completed over a period of 13 months, within budget and at 65 per cent of the mortgage valuation.

Post-occupancy

- On completion, all participants became individual owners; since the units are apartments, the freehold is held by an overall corporation (e.g., condominium corporation) with occupants holding a long-term leasehold interest.
- Zenzele formed its own management company in which each occupant owns one share and pays a monthly management fee to cover common maintenance.
- Although not undertaken primarily as a capacity-building initiative, 11 of the 12 participants had secured full-time employment by the end of the self-build initiative.
- Occupants found the units to be too small (39 square metres) and a number sold their units and moved "up market."

Institutional context

- Under the Housing Act 1974, special provisions are extended to assist self-builders (if they choose to register with the housing corporation); these include option mortgage facilities, forms of tax relief and formal requirements for the Housing Corporation to support self-build groups.
- Self-build groups in the United Kingdom are also recognized as housing associations under the Income and Corporations Act and are eligible for sales tax rebates.
- The National Federation of Housing Associations also provides technical support and guide manuals.

Initiative: Riverside Housing Association — London, United Kingdom

Date: 1982-1988

Number of units: 18

Source: NFHA (National Federation of Housing Associations). (1988). *Self Build: A Manual for Self Build Housing Associations.* London.

Summary

In 1982, the Riverside Housing Association was formed and members began searching for an appropriate site on which to construct a self-build development. After three and a half years, a 0.2 hectare (half-acre) site in Londonís Docklands was purchased for the group with the assistance of the Housing Association. During this time, the group had decreased to only eight of the original 23 members. However, once the group had secured a site, new members were easily recruited. An architect had already prepared the plans for the development because they were required in order to purchase the land. The group now had 18 members and the self-build project was to consist of 18 individually designed homes. The members themselves came from diverse income levels and backgrounds and many were unskilled in the field of construction. A significant number of members were, however, trained in building

trades and the group decided to work without a consultant in order to save money. The houses themselves were constructed of brick and block with insulation cavity. Each house was designed differently and this created several unforeseen problems which increased tensions, provoked disputes and delayed construction time. The development took over two years to complete, more than twice the intended time. The residents are pleased with their final product and it has proved to be a good investment since the property value of London's Docklands significantly increased during the time of construction. Despite the stress and often difficult group dynamics, the project emerged as a success and the participants now have a house they are proud to call home.

Organization

- Initiated by a single individual in the community who recruited another 22 members, most of whom were semi-professional or semi-skilled, though not necessarily in construction.
- Engaged an architect to develop preliminary designs as a way to recruit new members.
- Incorporated and registered as a building association.
- Most labour was undertaken by males, although a single mother actively participated.
- Women had a lead role in organization and administration, including initiating the project.

Financing

- Individual members were required to contribute a cash loan to the association as a deposit on land and to cover organization expenses.
- Members also contributed a further £35/month as a loan stock contribution to cover administrative and other costs.
- The government (Housing Corporation) provided a loan to purchase land and provided a guarantee for a construction loan through a private lender.
- Beyond the loan and guarantee, no government funding was provided.
- The total cost per dwelling was approximately £50,000 ($100,000) in 1988.

Design

- Preliminary design drawings were required to secure land. (The public owner wanted to ensure the compatibility of the proposed development.)
- The site was located in a conservation area which imposed special design guidelines.
- The unique design of each dwelling added to complexity and time delays (including changes during construction).

Construction

- Eighteen individually designed dwellings were constructed: eight detached, nine clustered row units and one maisonette over a garage.
- Brick and block wall with cavity insulation and tile roofs was used.
- Construction was planned to take one year but extended to two.
- Groups members were either professional or semi-skilled, though not all in construction skills. (The group did include an electrician, plumber, six bricklayers, two carpenters, an architect and two general builders.)
- Relying on the group's own expertise, the members began without a development consultant but to accelerate construction retained one of its members as a site manager.
- Had to tighten rules to ensure members fulfilled their minimum 20 hours/week as per individual agreements.
- The use of internal expertise to reduce costs was offset by a protracted period of development.

Post-occupancy

- The participants occupied the homes as individual owners.
- A housing market boom significantly enhanced the value of the homes on completion (the market has subsequently subsided).

Institutional context

- Support from the government housing agency (land loan and loan guarantee for construction loan) enabled the group to secure private financing.

Initiative: 367 E 10th Street Homesteaders Association — New York, New York, United States

Date: 1982-1988

Number of units: 14

Sources: U.S. Department of Housing and Urban Development (Office of Affordable Housing Programs). (1993). *Sweat Equity and the Home Program.* Washington: U.S. Dept. of HUD.

New York Times, May 20, 1994.

Summary

- This project began in 1983 when a single individual, Cesar Acevedo, unhappy with his family's cramped living situation, decided to develop a cooperative housing project. Avecedo organized a group of low-income families and began planning the initiative. With the assistance of New York's Urban Homesteading Program, an organization which gives city-owned buildings to low-income families willing to renovate them, the group began to search for a building. An old abandoned building on East 10th, which had been turned down by other developers because of the small size of the structure and its deteriorated condition, was given to the group of families. It was a six-storey walk-up building covered in garbage and mold with rotted walls and floor beams. City engineers recommended demolition but with the assistance of their architect, the group managed to convince the city otherwise. The group, now called the 367 E 10th Street Homesteaders Association, began working in 1987 and continued to work 12 hours every weekend for the next five years. On completion, the old dilapidated building had been converted into 14 residential units varying in size from one- to three-bedroom apartments. Most of the development costs were absorbed by several funds and organizations, and the participants now pay a monthly maintenance fee to cover taxes, heat and mortgage payments. Although several changes occurred in the group members throughout the process, those who finally moved into the renovated building were very satisfied with their new homes.

Organization

- The objective was to provide permanent, affordable housing for low-income families.
- An ancillary objective was to improve the neighbourhood by bringing abandoned buildings back into productive use.
- Individual families in the community, assisted by city officials, formed mutual housing associations to own and operate rehabilitated properties.
- Leadership and inspiration in this specific project was spearheaded by a single individual aware of the city's program but living in unsuitable crowded housing.
- A typical requirement under the Urban Homesteading program requires a minimum specification of sweat equity hours.

Financing

- Total rehabilitation costs of $1.52 million were covered by grants and loans from the

state's Low Income Housing Trust Fund and the City of New York.

- Participants' sweat equity was valued at $98,000 to which they added $70,000 of fund-raising (= $168,000).
- A construction loan of $232,644 was converted to a long-term 20-year mortgage repayable by the group.
- A small grant ($6,600) was provided by Consolidated Edison Company to offset the cost of energy-efficient windows and street trees.

Design

- The property was an existing 14-unit, six-storey, walk-up tenement.
- The building was in a serious state of disrepair with crumbling walls and rotten floor beams.
- A professional architect/renovator devised a rehabilitation program to bring it back up to standard.
- The rehabilitation was highly labour intensive and would not have been feasible with paid construction workers.

Construction

- Fourteen apartment units were constructed ranging in size from 51 m^2 (550 sq. ft.) (one-bedroom) to 120 m^2 (1,300 sq. ft.) (three-bedrooms).
- Engineering tests exposed serious structural problems and recommended demolition.
- A rehabilitation specialist provided technical engineering and design guidance.
- In a typical urban homesteading rehabilitation such as this, participants work together to clean up the site, do trim carpentry and most of the painting; some with higher construction skills or the ability to learn quickly take on a higher level of activity such as drywalling, taping and plastering.
- The rehabilitation was made cost effective only because of large sweat equity contributions.

Post-occupancy

- Monthly housing costs (1994) range from $300 to $600 and cover heat, taxes and mortgage payments.
- Most occupants remained low income but have employment.
- Residents self manage the property as a cooperative.
- As of 1994, some 50 buildings housing almost 400 families had been rehabilitated through these types of urban homesteading initiatives.
- This program has had a significant impact on both providing affordable housing and containing urban/neighbourhood decline.

Institutional context

- The high incidence of vacant abandoned properties in New York facilitates an urban homesteading approach.
- The City of New York Department of
- Housing Preservation and Development capitalized on the U.S. Department of Housing and Urban Development (HUD) funded urban homesteading programs enacted in the early 1970s to rehabilitate abandoned inner-city properties.
- City and state loans cover the cost of rehabilitation beyond that performed through sweat equity; resale restrictions lasting 15 to 30 years maintain long-term affordability. If guidelines are met, loans are forgiven.
- The city transfers ownership to low-income groups in exchange for their assistance (sweat equity) in rehabilitating and maintaining the

buildings and an agreement to maintain affordable costs over the long term.

- The same process is replicated across New York as well as in other cities.

Initiative: Drumchapel Community Self-Build — Glasgow, Scotland

Date: 1985

Number of units: Unspecified

Source: Turok, Ivan. (1994)."Tackling Poverty through Housing Investment: An Evaluation of a Community Self-Build Project in Glasgow." Housing Studies. 8 (1), pp. 47-59.

Summary

Drumchapel is a large high-density housing estate from the 1950s situated on the outskirts of Glasgow. Over the years, several social and physical problems developed in the community which prompted nearly half the residents to vacate the area between 1971 and 1989. The unoccupied dwellings were left in poor condition and deteriorated even further due to neglect. The remaining inhabitants of the area were mainly low-income families, and the community was plagued with high levels of crime and unemployment. In 1985, a program was initiated to rejuvenate the community and assist unmotivated, unemployed young people in acquiring skills, training and experience in the construction fields. Fifteen young, unemployed Drumchapel residents were recruited to participate in the program. The group, with an average age of 20, attended training sessions and construction courses at a local college for three months. A dilapidated apartment building was then selected and the group began to renovate the old building. As well as the paid construction work, the group participated in outdoor activities and volunteered in the community to help develop interpersonal skills and teamwork. The entire program lasted a year and a half and funding for the program was obtained through grants and sponsorship from charitable organizations. Once the renovation work was complete, participants had the option of moving into the newly finished project. The physical outcome of the program was successful with regard to the completed renovation of the building. However, the social aspects and the development of the participants were not quite as positive. Only six out of the 15 participants moved into the renovated building and only two remained after three months. Several participants left or were asked to leave during the construction period and had to be replaced by other applicants. After completion of the initiative, only one participant had found employment and most had returned to their previous lifestyle. The program, despite its lack of success in many areas, has proved to be a valuable source of information for organizations considering a similar initiative.

Organization

- Initiated by an urban regeneration and economic development organization, Drumchapel Opportunities.
- Part of existing large public housing estate on the outskirts of Glasgow.
- Focussed on rehabilitating a deteriorated apartment building.
- The primary objective was to increase employability and independence of youth in an area of high poverty and unemployment.

Financing

- Existing property already owned by the local authority (as part of a public housing portfolio).
- Costs related to the direct cost of rehabilitation as well as a significant expenditure on the education and training aspect of the initiative.
- Public sources provided most of the funding; of the total cost of £294,000, 66 per cent was provided as a grant from the local council and another 23 per cent came from the European Social Fund. Charitable foundations and the urban program covered the remainder.

- No mortgage debt involved: all costs paid by grant funds.

Design

- Existing properties: two adjacent tenements containing a total of 12 apartments (only three were occupied).
- Selected properties had a relatively sound exterior condition but poor internally due to decay and vandalism.
- The renovation was designed by an architect; the contractor who supervised the work pushed for a relatively standardized design between units to ensure costs met time constraints.
- A major interior redesign was undertaken including removing some partition walls, enlarging kitchens into open living rooms, replacement of windows, new shower and heating systems and improved insulation.
- During planning phase (six months), participants undertook training, including two months at a community college.

Construction

- The building contractor was appointed to oversee work and act as a general contractor for the sub-trades.
- Sub-trades completed the technical work for which the trainees were not certified (electrical and plumbing).
- The renovation was undertaken over a nine-month period (influenced by duration of training allowances).
- The buildings were converted into 15 individual apartments for singles and couples.
- The quality is higher than adjacent properties, especially in the level of insulation.
- The total cost was no lower than could have been achieved with skilled paid labour, mainly due to the high costs of training, living allowance and supervision.

Post-occupancy

- The units remained as part of the portfolio of the local council, but trainee renovators had the option of occupying a unit as tenants.
- Six of the 15 trainees that completed the process moved into the units they had rebuilt; the others remained in parents' homes or chose not to move in because they did not like the area.
- Only one secured employment in construction work. (Training was not sufficient to obtain certification so it did not fully enable participants to access employment in this area).

Institutional context

- Significant institutional support through various government funding programs.

Initiative: Urban Homesteading — Portland, Oregon, United States

Date: 1979-present

Number of units: 135

Source: U.S. Department of Housing and Urban Development (Office of Affordable Housing Programs). (1991). *Homeownership and Affordable Housing: The Opportunities.* Washington: U.S. Dept. of HUD.

Summary

The Urban Homesteading Program began in Portland, Oregon in 1979 under the management of the Portland Development Commission. The new program was initiated to revitalize neighbourhoods and create affordable housing opportunities for families who would otherwise have difficulty buying a home. The program

locates neglected homes which have been abandoned and are run down. An assessment of the required renovations is completed and eligible applicants are invited to view the house and enter a lottery to purchase it. Once the selection is made, a loan is settled and the applicant hires a contractor to finish the renovation. The rehabilitation must be completed within 60 days. Therefore, several homesteaders assist with painting and cleaning in order to finish the project on time and lower costs. Before homesteaders can be considered for a home, they must attend training courses and counselling about the initiative and the aspects of owning a home. They are required to reside in their new home for five years and follow the conditions of homeownership set out by the Urban Homesteading Program before acquiring title to the property. Once residents have completed their five years, most remain in their home and become a vital part of the community. Since the program was initiated, 185 properties have been successfully renovated. Most of the new homeowners are in their 30s and a significant number are minority families and female heads of households.

Organization

- An urban self-build (rehab) initiative that involves individual acquisition.
- A formal program delivered by a city agency (Portland Development Corporation, PDC).
- Focus is on neighbourhood revitalization and creating opportunities for affordable housing.

Financing

- Existing foreclosed properties acquired from the Federal Housing Authority or Veterans Affairs.
- Price limits on acquisition costs set by the U.S. Department of Housing and Urban Development (HUD) ($25,000 for single detached, $33,000 for duplex).
- Acquisition cost is paid by HUD under the Urban Homesteading Program.
- Each homesteader must provide a $500 cash down payment to cover the first year's taxes and interest on the renovation loan.
- Each homesteader must be able to qualify for a mortgage (to cover rehab cost up to $27,000).
- The PDC undertakes the arrangements and packages the renovation loan; the PDC has previously taken advantage of loans from HUD at below-market rates but, increasingly, looks to private lenders.

Design

- Rehabilitation of existing properties, primarily single-detached homes but also includes some duplexes.
- Properties rehabilitated to meet building code and occupancy standards; most have been vacant for some time and often vandalized.
- Building rehabilitation must be feasible within budget, so properties in extreme disrepair are not selected.
- City program officials inspect property to specify and cost out renovation costs.

Construction

- Each homesteader must have the capability to rehabilitate the property either through sweat equity or by financing the renovation.
- Approximately 10 per cent of participants do provide some sweat equity.
- The requirement that rehabilitation be complete in 60 days limits the potential for employed participants to maximize sweat equity.
- The city has an agreement with the school district to utilize student help for properties requiring extensive work beyond that affordable within rehab loans; in these cases, rehab is spread over a nine-month period and the homesteader covers the cost of material only.

Post-occupancy

- On completion of rehabilitation, the properties are conveyed conditionally for a five-year occupancy period.
- Conditions relate to maintaining the property and making mortgage payments; after five years of compliance, the homesteader receives fee simple.
- High proportions of participants have been minorities and female heads of households .
- The average income of participants is well below the program ceiling of 80 per cent of median income.

Institutional context

- The initiative is made possible by a range of government funding programs, to cover both the acquisition cost and administrative costs associated with the program: the selection of properties for acquisition, inspections and monitoring rehabilitation.
- The availability of foreclosed properties at a modest (eligible) price is a prerequisite.

Initiative: Sandy Merriman House — Victoria, British Columbia, Canada

Date: 1994

Number of units: 1

Source: CMHC (Canada Mortgage and Housing Corporation). (1995). *Inventory of Projects and Programs Addressing Homelessness.* Ottawa: CMHC.

Summary

In 1994, the City of Victoria Social Planning Department identified the need for a women's shelter and along with the Greater Victoria Womenís Shelter Society (GVWSS) organized the new development. A lack of funds prompted the creative adaptation of a self-build initiative to help homeless women in Victoria. This resulted in the purchase and renovation of a heritage house. This house, now called the Sandy Merriman House, was to operate as an emergency shelter for street women and was the first phase in an ongoing program to construct low-income, non-profit, long-term supportive housing for women. Eleven women on social assistance were chosen to participate in the initiative and had to complete a four-month classroom training session which introduced them to basic construction skills. Following the classroom sessions, the 11 women were employed on the construction site of the new emergency shelter for a six-month workplace-based training program. The women worked with an experienced construction crew where they received hands-on training and became familiar with the construction site. Counselling and further education was an ongoing part of the training process. The entire training project was completed in one year and most involved had only positive feedback about their experience. The shelter was successfully completed and participants received valuable training and experience both in construction trades and life skills. Two participants went on to apprenticeship programs and two others secured jobs at the shelter. For the rest of the women, the employment prospects in construction trades remain low in this male-dominated field. However, they have credited the program with improving their confidence and self-esteem and, as a result, they now feel they have a brighter and more directed future.

Organization

- Initiated in 1994 under the auspices of the City of Victoria Social Planning Department, a womens' shelter was identified as a gap in the city social services.
- The Greater Victoria Women's Shelter Society took on the responsibility to develop and operate the facility; a community-based advisory committee assisted the GVWSS through the development process.
- While development of a womens' shelter was the primary objective, a lack of funding for

development stimulated the creative response of the self-build approach as this could be funded through training and education funds.

- The initiative combined the building of a property as a shelter with education and personal skills development.
- The target was homeless and at-risk women (11 participated in construction).
- Counselling, training and education were key elements, provided to clients who would have difficulty accessing mainstream training programs.

Financing

- The property was provided in the form of an existing heritage house on a 60-year lease for $1.
- Total renovation capital cost was $1.5 million.
- Capital costs of construction and training costs were covered by funding from various provincial ministries.
- Ongoing operating costs including support services to be funded annually by the provincial Ministry of Social Services.

Design

- An existing, large three-storey house was renovated to create an emergency shelter accommodating a total of 15 beds in single, double and quad rooms, together with office and administrative space, kitchen and drop-in area.
- A long-term facility was initially planned but not undertaken due to a lack of funding.
- A professional architect was retained to prepare design drawings with society members and trainee participants involved in the design process.

Construction

- A construction manager was retained to oversee and supervise construction.
- Sub-trades were used for technical work including plumbing and electrical; they also acted as mentors to trainees.
- Trainee participants undertook general labour and assorted tasks.
- Construction/renovation took place over a one-year period, completed in late 1995.

Post-occupancy

- The house was developed as an emergency shelter, not as permanent housing.
- Two of the participants went on to apprenticeship programs in construction trades, two others secured employment in the shelter.

Institutional context

- The project could not have been undertaken without the support of local government officials and various provincial ministries including social services and employment and investment.
- Funding for the shelter itself was not available; the creative use of other funds led to the self-build approach.

Initiative: **Group Self-Build — South Australia**

Date: 1995

Number of units: Unspecified

Source: SACHA (South Australia Community Housing Authority). (1996). *Annual Report.* Melbourne: SACHA.

Australia Department of Human Services. (1996). *Group Self Build Handbook.* Melbourne: Dept. of Human Services, Office of Housing.

Summary

The South Australian Community Housing Authority provides support and resources for the development of innovation in community housing and, in 1995, launched a group self-build initiative. The association provided the framework for the new program which would assist groups of 10 to 15 self-builders organize, initiate and complete the construction of new homes. Each self-build group was made up of individuals with insufficient funds to make a deposit on a house but who were willing to volunteer their own labour in order to purchase a home. Efforts were made to ensure the participants of each group varied in skill level, experience and background. An experienced building supervisor was assigned to the group to direct the project and assist the self-builders. Prior to construction, the group held several meetings to discuss design issues, organization and all other aspects of the initiative. Once construction began, members were required to work at least 20 hours a week at the construction site. Members were not allowed to work overtime on their own house without the supervisor's consent and nobody could move into a house before all of them were finished. Once construction was complete, the self-builders could move into their homes after they provided evidence that they were approved for a home loan and their home had been insured and approved by the building advisor. The project has had positive reviews and appears to be a financial, social and physical success.

Organization

- The process was coordinated by a community housing association, South Australia Community Housing Authority (SACHA).
- Individuals apply to the association/ department and are formed into self-build groups of 10 to 15 participants.
- Participants are required to contribute at least 20 hours per week on site and attend weekly group meetings to plan and organize work; the construction period extends over a 10 to 12 month period.
- Penalties are imposed for absence from meetings or from site during designated hours.
- Participants enter into two agreements, one with the housing association, the other with the self-build group, specifying obligations and responsibilities.

Financing

- Individuals are not required to qualify for a loan; depending on the circumstances of each household, participants may apply for loans or join the housing cooperative at the completion of construction, i.e., qualifying for a home is not a prerequisite for joining the program.
- No down payment or deposit is required as sweat equity is recognized as down payment; alternatively, the value of sweat equity is issued as equity investment shares in the cooperative.
- Land purchase and bridge financing (construction loan) are provided by SACHA.
- The land is held in the name of the cooperative and transferred to individuals who can secure a mortgage.
- The group uses bulk buying to minimize the cost of materials.

Design

- A small variety of standardized house designs was offered.
- A typical development involved single detached dwellings with carports under the main roof, fully fenced, sealed driveways and paths.

Construction

- Conventional timber frame with brick cladding.
- Self-builders' tasks allocated by building advisor; they do not work on their own dwelling unless specified by the advisor.
- Self-builders involved to the greatest extent possible in those areas where they have necessary expertise.
- Self-builders cannot undertake work for which they are not qualified/certified (e.g., plumbing and electrical); these trades are subcontracted as required.
- All work must adhere to codes and building standards.
- Seek to complete construction in shortest possible time, normally 10 to12 months.

Post-occupancy

- Self-builders cannot occupy their homes until all the houses in the project are complete.
- Participants can take out a mortgage to purchase the property or form a housing cooperative (i.e., no requirement to take out a loan).

Institutional context

- No government funding is involved beyond the overhead cost of administering the program.
- If the participant decides to form a housing cooperative, there are ongoing administrative costs (training, information provision, monitoring of performance, etc.).
- A highly supportive context exists with technical manuals and consultants experienced in self-build.
- The land can be mortgaged as security for the loan.

Initiative: Self-Build Terraced Housing — Vallingby, Sweden

Date: 1990s

Number of units: 16

Source: Hanström, Maj-Britt, Rolf Johansson and Sten Leijonhufvud. (1995). Grimsta: *Evaluation of a Self-Built Rental Row Housing.* Stockholm: Royal Technical University.

Summary

In Vallingby, a planned city from the 1950s located in the suburbs of Stockholm, a high demand for housing and low-rent housing had developed. In response to community demands, a housing company, Svenska Bostader (SB), initiated a self-build development for rental units. Sixteen families, mostly couples between the ages of 25 and 50 renting in the area, were selected to participate in the self-build project. Prior to the selection of the families, plans had been developed and, therefore, no special design principle was used to accommodate the self-builders. Despite this, the group made some alterations to the initial design during the construction process to better suit the houses to their needs. A project leader supervised the construction and a contractor was hired for the technical details and delivery of the materials. The group worked evenings, weekends and holidays to complete the 16 two-storey row houses and garages. The group of self-builders rent the building from Svenska Bostader as a cooperative and then rent out the units individually. Rental self-build is an unusual development in Sweden, a country with strong traditions in self-build to own developments and, therefore, new

financial and legal arrangements were required. This self-build project is viewed as a success because, despite minor financial issues, the construction work was completed on time and the participants involved are pleased with the result.

Organization

- Initiated by a housing company, Svenska Bostader, on the suggestion of the residents of existing neighbourhoods.
- The primary objective was to respond to demand in the community and to provide housing to those seeking low-rent housing.
- Self-build reduced the cost and rent level.
- Participants were couples already living in SB rental housing in the area; they responded to an article in the neighbourhood newspaper and to posters in the existing buildings. Many declined because they wanted to self-build to own.
- Sixteen households were selected; most were family members, varying in age between 25 and 50 years.

Financing

- SB owns and manages Grimsta (1,600 units); it used its own financial mechanisms and capital reserves.
- Each resident household was given SK 75,000 (C$15,000), tax free, for the sweat equity contribution; the residents used this amount toward upgrades and the remainder for free rent, which ranged from one month to one year.
- SB owns the buildings; the residents have formed a cooperative which undertakes some maintenance tasks to reduce costs to member tenants.

Design

- The buildings are well located, served by road as well as by the main pedestrian way.
- The buildings met existing building codes and standards and were inspected in the usual manner.
- The self-build two-storey rowhouse unit (105 m^2) were larger than the existing apartments in Grimsta, typically built in four-storey buildings.
- Plans were already developed for the unit, but the self-builders made some design changes for all units (built the attic for potential expansion), customized individual units (choice of number of rooms, location of walls and doors) and chose upgrades (wood floors, fireplace, better appliances).

Construction

- Two buildings of eight two-storey dwellings each were built; two other buildings were built for garages and storage rooms.
- A project leader supervised construction and provided information for self-builders; a big binder was provided with plans, construction details and instructions.
- A contractor was hired to build the adjoining seniorsí housing and to undertake the technical aspects of the self-build units (excavation, foundation, roof, vapour barriers, plumbing, electricity, etc.).
- The contractor was also responsible for delivering the material according to schedule.
- All the units except one were completed to schedule (the last was completed two weeks later). Self-builders worked evenings, weekends and holidays; they did not have technical assistance during this time and they helped each other.

Post-occupancy

- The cooperative appears to be working well; the tenants are a cohesive group due to the self-build experience.

- Some financial issues remained outstanding. After the warrantee period, the responsibility for repair costs was not allocated between owner, builder and tenant; a maintenance fund has been established for the cooperative and for each unit, but there are no mechanisms for extraordinary capital repair costs.
- The cooperative carries empty units for six months; one is empty.
- Some problems of integration arose with the existing neighbourhood; seniors sometimes complain about children.

Institutional context

- Vallingby was a planned new town in the 1950s, located close to Stockholm.
- This self-build is unique in producing rental housing and was coordinated by a rental development company; this is the first self-build experience for the SB company.
- In Stockholm, SMAA (small-house department) has encouraged self-build since 1926, mostly single-family units, some row housing (after 1930), and five co-housing buildings in the late 1980s.
- Since SB is a professional builder, they did not need to consult SMAA.
- Most self-build units are for ownership, and banks are beginning to finance them.
- Rental self-build is unusual and required new legal and financial arrangements; SB is willing to support self-build rental units in the future.
- Suggestions to improve the self-build process include use of models with cutaways to show construction; plans with furniture to show scale; instructions on video; a demo unit built by professionals and observed by self-builders; and visits to building sites.

CONCLUSION

In a for-profit housing development the house is primarily a product with calculable value in the marketplace, but the concept and experience of self-build emphasizes the house as a place to live. Certainly it will have a value in the market but its role in that regard is secondary to the one it plays in providing a home for those who own it. In fact this role reflects not a new direction in housing but something of a rediscovery of the way people have provided shelter for themselves throughout history. By offering a method for active involvement in the development and the actual construction of one's own dwelling, self-build can provide not only amenity but the ability to reflect one's own aspirations and individual character.

The role that a dwelling can play as social expression touches on the benefit most touted by self-build advocates: that the accessibility afforded by self-build is matched only by its ability to bring communities together. This capacity can be understood in terms of the necessity brought on by circumstance. By participating in the development and construction of housing, the pooling of resources with others in similar circumstances provides the extra capability that can allow people to become homeowners. The cooperation demanded by the execution of a construction project acts as a foundation for social ties and networks that allow a community to act on its own behalf and gain strength from its collective capacity.

By eliminating profits and numerous expenses at various stages of the procurement process, self-build can significantly reduce housing costs. Fundamental to this fact, however, is the investment of time and effort on the part of the participants to ensure the project's success. As such, the suitability of a self-build initiative to a specific set of circumstances can vary significantly. Moreover, the degree to which self-build contributes to a project's ultimate realization should be carefully considered. In some instances, market conditions make it prudent to combine self-help with more traditional methods. Such an approach can be useful at all levels of the process: from pre-development to construction finishing.

In the development of the comprehensive analytical framework as the primary objective of this research, the authors have sought to encompass the range of issues and considerations that have some bearing on self-build as a way of procuring housing. A review of the literature and the 30 self-build initiatives have provided insight into the range of approaches in use. It has also suggested some lessons about the potential of self-build.

The focus of the research has been on multiple-unit, urban examples which represent a relatively recent evolution in the self-build movement, one traditionally rooted in single and either rural or small-town applications. The examples reveal that, despite the perception that multiple-unit structures are more complex from a design and engineering standpoint, many self-build groups have successfully responded to this challenge.

Six categories were selected for use in the analytical framework as a method of classifying the factors that are essential to the success of an evaluated self-build initiative. These categories are: organization, financing, design, construction, post-occupancy, and institutional context. Each category comprises five key factors which are necessary considerations in any self-build project that is to succeed in Canada. These factors, arranged according to category, are:

Organization

- A grass-roots, community-based initiative (as opposed to a government-initiated project) draws greater support and contribution from the community, harnesses a broader array of resources, and provides higher levels of creativity and incentive.

- A self-build project organized with the primary objective of producing homes for

the participants (as opposed to a project with the main goal of providing training or rehabilitation) has a greater chance of success at producing homes at reduced cost.

- The inclusion of a community development strategy (building a stronger community, consolidating an existing community, developing human capacity) builds a broader base of support for self-build initiatives.

- Self-build participants must form an organizational structure for the purposes of management, administration and decision making for the initiative. Responsibilities of the organization include formulation of objectives, initiation of development, arrangement of financing and selection of design.

- Successful self-build initiatives include, as part of their organizational objectives, a consensual agreement to a minimum post-occupancy tenure; in the absence of such an agreement, the mutual objective of housing production at reduced cost may be undermined by motives of speculation and profit.

Financing

- All self-build projects must have an approved source of capital or financing which covers not only planned aspects but also cost overruns and unforeseen contingencies.

- Although the financial plan of an initiative would be incomplete if the full range of available incentives (programs and tax breaks) were not investigated, the project must be able to proceed independently of government incentives.

- Self-build participants must determine, in advance, the extent to which lenders will recognize non-cash equity (owned land, self-build labour, donated materials) in assessing the lending value and amount of borrowing.

- A legal framework, such as exists in Canada, must be in place to provide an effective mechanism through which to pledge property to secure a mortgage.

- The financing of a self-build project depends, to a great extent, on the ability of the participants to meet the loan conditions of the lender (e.g., mortgage insurance, property pledge, minimum level of pre-sales in a development).

Design

- Any housing project, including self-build, must conform to national and local building codes.

- Any housing project, including self-build, must also conform to municipal zoning by-laws.

- Key aspects of the housing project's design concept are the approval of a design professional, the involvement of the self-build participants in the design process, the flexibility of the design, and ensuring that the design is in keeping with prevailing urban or rural patterns and in accordance with the tastes and desires of the self-builders.

- The project design must incorporate features specifically geared to a northern climate and prevailing regional norms.

- The design for the initiative must be subject to an economic feasibility study to ensure its cost effectiveness and to ascertain that the self-build aspect of the project's design represents a cost reduction over conventional build.

Construction

- For the housing venture to be valid as a self-build initiative, the participants must ensure that their project is both cost effective and that the labour and homeownership costs are reduced as a result of the participants" contributions to the construction process.

- The most preferable construction method chosen for the initiative will be one that conforms to local conditions.

- The self-build participants must supply or recruit the necessary labour skills so the project can be undertaken and completed satisfactorily and within budget.

- The construction of an initiative can be executed successfully only if all required materials and tools are available locally or can be acquired easily and affordably.

- A mechanism for quality control is an essential component of any self-build initiative, whether such a mechanism is provided from within the ranks of the participants or from an external regulating body.

Post-occupancy

- A successful initiative will satisfy two primary self-build objectives: the provision of homes for the people who participated in their production, and the provision of such homes at a lower cost than for homes built conventionally. Ideally, the affordability of the housing will have made homes accessible to participants who would otherwise not have been in a position to be homeowners.

- The housing produced by self-build initiatives, particularly in renovation projects, frequently contributes to the enhancement or regeneration of neighbourhoods, in aesthetic, financial and social respects.

- The organizational networks created by self-build initiatives, if maintained beyond project completion, can provide ongoing benefits of a managerial, financial and community-related nature to the participants (i.e., building management, municipal lobbying, conflict resolution, self-policing).

- If skills enhancement for the purpose of increased employability is an ancillary objective of the initiative, self-build participation can provide training and experience which may prove valuable to people who worked on the housing project either in management and administration or construction.

- Self-build initiatives produce housing that is deemed more satisfactory to the participants than homes built and purchased conventionally (i.e., higher degrees of quality and precision, higher levels of pride and satisfaction with results).

Institutional context

- The existence of a supportive framework (government and non-government) greatly enhances the opportunities for success of a self-build initiative (i.e., formal recognition of self-build, existence of a system of housing finance, existing network of self-build organizations).

- Self-build participants will provide additional support and benefit to their initiatives when they research and access any sources of available technical assistance.

- Self-build participants should explore all possible sources of financial aid that may be available from different levels of government or from foundations.

- Although the support of community organizations can be highly beneficial to any self-build initiative, the initiative must be organized and financed so it can function independently (i.e., in the absence of any such organizations).

- Self-build participants must ensure that their initiative is in compliance with all relevant government and industry housing regulations, including those governing the proper use of union and non-union labour, non-conventional building techniques and self-build multi-unit projects.

A number of cases were identified where self-build was part of a larger initiative focussing on

goals of empowerment, self-sufficiency and capacity building. The self-build process in these examples provided a tangible goal by which to motivate participants and on which to concentrate their efforts. In many of these cases, the initiative achieved success in producing housing but did not necessarily reduce the cost over conventional construction, nor did the participants go on to occupy the homes. In such instances, the issue of housing versus ancillary objectives needs to be clearly articulated and the measures of success developed accordingly. The role of a supportive organization both during the initiative and beyond appears critical to these types of self-build/ community-development efforts.

Implications and Lessons for Canada

In their review of the international and domestic experience with self-build, the authors have identified a number of opportunities and lessons for Canadians considering self-build initiatives. These include the potential to access labour funding, the benefits of a supportive institutional infrastructure to support and promote self-build efforts, the relative cost benefit of utilizing existing properties, the benefit of adopting simple construction techniques, and the design of housing in a more adaptable manner. It was also evident that some degree of government funding can be an important component, complementing savings accrued through sweat equity; this is especially the case in larger communities where land costs are high, and even with the benefit of sweat equity it is difficult to construct housing that is affordable to very low-income households.

Many of the analyzed self-build initiatives encompassed a broader set of objectives relating to local community development and capacity building. The creation of housing through self-build techniques was embraced as a tangible means of building a sense of cooperation and empowering community members to become more self-reliant. In a number of cases, the skills development aspect of the initiative was facilitated and funded through special funding under labour and social service programs. In the Sandy Merriman House project in Victoria, considerable financial assistance was achieved through this approach. Given the current context in Canada where funding through housing programs is no longer available, an alternative source of funding could be effective and would depend on adopting a self-build housing approach.

The examples drawn from the United Kingdom, Netherlands and Australia illustrate the significant impact that a formal institutional framework can have. In each of these countries, public agencies provide an array of technical advice and guidance to self-build groups. In some instances, grants, loans or loan guarantees and financing were provided. With government support, self-build has been elevated to a more credible level and a cadre of specialized consultants and construction supervisors has evolved. The examples from the United Kingdom demonstrate the benefit of a specialized project manager and illustrate the potential of self-build for housing both owned and rented.

The role of community organizations and non-profit groups has further enabled the development of self-build groups. In particular, initiatives serving very low-income households frequently experience difficulties securing financing. A non-profit or community-based organization with a good record in the community provides the credibility and legitimacy necessary to reassure lenders.

The infusion of a limited amount of public funding is another way of providing the initial equity to secure project funding. Such an approach may be especially important where a significant amount of sweat equity is anticipated which can affect the loan-to-value ratio for the purpose of underwriting; until the project is built, this sweat equity does not exist, so the lender has no security on a construction loan.

The following features of the 30 analyzed self-build initiatives are noteworthy for their applicability to the Canadian context.

- Concrete and concrete block construction system (Self-Build Renovation, Givat Olga, Israel).

- Multi-storey housing renovation with rental tenure (ERA block, Zoetemeer, Netherlands).
- Rental tenants are paid or given credit for their renovation efforts (ERA block, Zoetemeer, Netherlands; "Anniversary Plan," Huizen, Netherlands; Self-Build Terraced Housing, Vallingby, Sweden).
- Design for a limited skill level (ERA block, Zoetemeer, Netherlands; Land-Share Self-Build, Manangkasila, Bangkok, Thailand; Campos do Jordao, Sao Paolo, Brazil; Balcarres Street Self-Build, Edinburgh, Scotland; Zenzele Self-Build Association, Bristol, United Kingdom).
- All materials and finishes readily available (ERA block, Zoetemeer, Netherlands).
- Individualization of units by future residents (ERA block, Zoetemeer, Netherlands; Shell Dwellings, Kockengen, Netherlands; Maconochies Wharf Housing Scheme, Isle of Dogs, United Kingdom; Livinston Self-Build, Edinburgh, Scotland; Self-Build Terraced Housing, Vallingby, Sweden).
- Self-build as a finishing effort on a partially completed building, i.e., shell dwelling (Shell Dwellings, Kockengen, Netherlands; Social Sector Self-Build, Dronten, Netherlands; Roan Court, Macclesfield, United Kingdom).
- On-site assistance plus the option to have professionals complete tasks beyond the skills of self-builders (Roan Court, Macclesfield, United Kingdom; Zenzele Self-Build Association, Bristol, United Kingdom; Sandy Merriman House, Victoria, British Columbia, Canada; Group Self-Build, South Australia).
- Services and organizations remain in place following construction (Roan Court, Macclesfield, United Kingdom; Boston Commonwealth Housing Revitalization, Boston, Massachusetts, United States).
- Partnership between grass-roots organizations and different levels of government (Boston Commonwealth Housing Revitalization, Boston, Massachusetts, United States; Community Corporation, Santa Monica, California, United States).
- Lease-to-own arrangements (Cape Breton Labourers" Development Company, Sydney, Nova Scotia, Canada).
- Individual contributions to a collective infrastructure fund (The Incremental Development Scheme, Pakistan).
- Pooling of resources of diverse groups to achieve shared housing goals (AVP Foundation, Bogota, Colombia).
- Partnership with the research community to access innovative technologies and methods (Campos do Jordao, Sao Paolo, Brazil).
- Rehabilitation/renovation grants from government (367 E 10th Street Homesteaders Association, New York, New York, United States; Drumchapel Community Self-Build, Glasgow, Scotland; Urban Homesteading, Portland, Oregon, United States).

In conclusion, the authors of the report emphasize that the analytical framework developed to identify factors of success or failure in self-build initiatives both at home and abroad functions as a model which demonstrates the range of self-build factors worthy of consideration in Canada. The framework provides a checklist and a series of prompts intended to assist an individual or a group developing their own self-build initiative. Together with the appendix, which provides a guidebook to the framework, the analytical framework developed as the objective of this report is an effort to furnish Canadians with proven factors, which contribute to the achievement of a successful self-build initiative.

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APPENDIX A

GUIDEBOOK TO THE ANALYTICAL FRAMEWORK

APPENDIX A: GUIDEBOOK TO THE ANALYTICAL FRAMEWORK

This guidebook is intended as a quick reference to prompt and inform potential self-builders or analysts in reviewing self-build examples. Each numbered entry relates to a corresponding sub-category question and serves to elaborate on some of the issues that should be considered in the main category. In a number of cases, it also sketches the current circumstances in Canada and thereby alerts the reader to the particular aspects of an example which may be either easy or difficult to adapt to the Canadian context. The purpose is to help the user identify either key positive factors or weaknesses/failings in the examined self-build initiative and to receive advice for further consideration in terms of the initiativefs validity and its applicability to the Canadian context.

Organization

- Was the project a grass-roots initiative (e.g., not government initiated)?

1) Was the project formed by a core of motivated community leaders?

The range of examples exposes two very different approaches. One is truly self-help and is initiated by the beneficiaries. The other is imposed on a community of individuals by a development agency or government program. The latter maintains an element of paternalism but invokes the direct participation of beneficiaries in the outcome. The long-term commitment by the group may be stronger when they have evolved naturally from an identified need within their community. The example of the Drumchapel and Balcarres self-build initiatives, both in Scotland, reflect cases where participants were recruited on the basis of being unemployed. They were simply participants in another government retraining scheme. Conversely, in the Zenzele group, one community member conceived the idea of building their own homes and the community rallied around and became committed to this goal (NFHA, 1988a, 1998b; Turok, 1994; Roberts, 1995).

2) Did the participants take advantage of available professional organizations?

In many jurisdictions, both for-profit and non-profit advisory agencies exist to provide technical assistance to community groups seeking to develop their own housing. Self-build housing involves a relatively protracted and complicated development process, including the need to secure approvals from various levels of government and meet building and planning regulations. A professional technical advisor can assist inexperienced groups to navigate through this process. During the construction process, a professional site supervisor can also provide invaluable direction and assistance, and help to avoid costly errors (NFHA, 1988a; CMHC, 1995b; Turok, 1994).

3) Were participants required to meet specified eligibility criteria?

Where an initiative is undertaken under the auspices of a government program, there may be specific targeting criteria, e.g., income below a certain limit, currently on social assistance or unemployment. In other cases, criteria may reflect the needs of the initiating core group. They will seek to recruit skill sets that can augment the core group: architectural design, engineering or construction skills (e.g., Livinston Self-Build). When undertaken independent of government funding, the ability of each participant to provide some working capital and to qualify for mortgage financing may be an important criterion, as in the case, for example, of Riverside self-build (NFHA, 1988b; Roberts, 1995).

4) Did recruitment to the initiative take into account the skills and expertise of potential participants?

Self-build groups often seek to encompass as complete a set of expertise as possible in order to minimize the cost of hiring specialized professionals (e.g., architect) or certain sub-trades. Planning a recruitment strategy can be an important aspect of initial organization. In cases where the initiative focusses more on skills development,

recruitment will be premised on other criteria more relevant to this objective.

- Was the initiative's primary objective the procurement of housing?

5) If the initiative had multiple objectives, was the primary objective the procurement of housing?

Community development or urban revitalization efforts commonly have multiple goals and are part of a comprehensive intervention. They aim to develop local capacity and use the construction of housing as a useful conduit through which to develop employment skills and concurrently address both housing need and poor physical repair. The review of examples found a wide range of initiatives in which the construction of housing was the vehicle by which other objectives were being pursued, e.g., community building, personal development, skills enhancement and employment training (e.g., Sandy Merriman House, Balcarres Street). In these cases, the procurement of housing was an ancillary, but secondary, outcome. In other cases, housing and other objectives were pursued in parallel, such as neighbourhood rehabilitation and urban revitalization (New York and Portland homesteading programs). Increasingly, with the decline in targeted housing funding, the procurement of affordable housing is being linked to broader community objectives (Levine, 1994a,1994b; Turok, 1994; CHRA, 1997).

6) Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?

A large proportion of self-build activity is related to individuals self-contracting and building their own homes. In this study, the emphasis is on multi-unit initiatives. In many cases, however, the aim was still to assist households in achieving individual goals of ownership. The approach used was to work collectively, combining both skills and financial resources. In other cases, the self-build approach is used to develop housing that remains owned as a cooperative, with individuals occupying a unit as members of the cooperative. Self-build for rent was also identified in a number of initiatives (e.g., Balcarres, Drumchapel, Vallingby). The model used by Habitat for Humanity is a further variant, utilizing a broad base of community resources and sweat equity to produce housing collectively for a single household. The recipient then contributes sweat equity to assist in the construction of homes for others (Clapham et al., 1993; Duke and Macleod, 1995a; Hanström et al., 1995).

7) Was training made available for unskilled participants?

Where the objective is to maximize the level of sweat equity and minimize paid labour, the self-build groups must possess the necessary skills. Initiatives focussed on lower-income and unskilled participants often incorporate a training element into the process. This can include both courses and hands-on experience, which have cost implications for the project. In most cases, these are covered by a separate training and education allowance, not capitalized into project costs. With no new development funds available for housing, some organizations have pursued housing objectives under training and education programs as a creative way to access funding, as in the case, for example, of Sandy Merriman House (Roberts, 1995; GVWSS, 1996).

8) Were low-income or unemployed people allowed to participate in the initiative?

The participation of low-income participants will be defined by the focus of the group and, to some degree, the extent to which the initiative is being sponsored by community agencies. A number of initiatives are specifically targeted at this level. In other cases, the self-build group comprises professional or semi-professional employed individuals. These initiatives are self-financed and dictate a minimum income in order to cover start-up costs (land and permits) and, to qualify for both, combine a construction loan with individuals taking out mortgages (Bubel, 1989; Fitzpatrick, 1992; Duncan and Rowe, 1993).

- Was the initiative part of a community development strategy?

9) Was the objective of the initiative to build a stronger community?

Since shelter is a fundamental need, it is often an effective catalyst through which to mobilize community effort. This has been evident in numerous crime prevention initiatives where residents in a community who previously ignored their neighbours have rallied around concerns about crime and insecurity. This has often led to redesign, active communities and more "eyes on the street." Self-build in the form of rehabilitation has also contributed to this goal. In working together, individuals get to know their future neighbours from the outset. More often than not, a stronger sense of community is an outcome rather than an objective of self-build (U.S. HUD, 1993; GVWSS, 1996).

10) Was the objective of the initiative to develop human capacity?

The process of self-build encompasses a complex process of planning, design and construction. Through this process, the opportunity exists to develop a range of skills. In addition to the obvious technical construction skills, the self-build process is seen to assist in developing interpersonal skills, teamwork and organizational abilities, time management, accounting and bookkeeping. These outcomes may result even where they were not specified among the initial objectives of the development (NFHA, 1988a; Turok, 1994; Duke and Macleod, 1995a).

11) Was the focus of the initiative a deprived area (high poverty and unemployment)?

As self-build is associated with lower production costs, this approach has been applied as part of community and neighbourhood revitalization efforts. Typically, these are sponsored and directed by community development agencies and have access to a variety of funding programs. The Homewood-Brushton Redevelopment Corporation in Philadelphia and the John Heinz Neighborhood Development Program are examples of this approach. The purpose of the John Heinz program is to support eligible neighbourhood development activities using cooperative efforts and monetary contributions from local sources. The federal funds are incentive funds to promote neighbourhood development initiatives and to encourage neighbourhood organizations to become more self-sufficient in their development activities (U.S. HUD, 1993; President's Community Enterprise Board, 1994).

- Did the participants form and maintain an organizational structure?

12) Was the initiative formally incorporated?

Incorporating a self-build group can provide a number of distinct benefits. A legal entity is required in order to option or purchase land, enter into contracts with suppliers and secure mortgage financing. It also helps to formalize the group and define responsibilities. A formal decision-making system improves the group's capacity to make decisions and, by identifying key officials such as chair, treasurer and secretary, the affairs of the group can be better organized (NFHA, 1988a).

13) Was a structure introduced for the purpose of accessing funding and financial assistance if available?

In some cases, incorporation may be a necessity in order to access mortgage loans. In others, it provides access to certain benefits. In Canada, an incorporated not-for-profit association or cooperative is eligible for mortgage insurance at 100 per cent of the lending value of the project. These associations may also qualify for project development loans through CMHC. Finally, non-profit organizations receive a Goods and Services Tax (GST) rebate reducing the effective GST rate on construction costs to 3.5 per cent.

14) Did the initiative's organizational structure function as its own general contractor?

Many self-build groups hire a construction manager or site supervisor but retain the role of general contractor for themselves. This can save some expenses but also requires that the group members, or at least executives of the board, are available to make decisions relating to the work of sub-trades (Fitzpatrick, 1992).

15) Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?

The self-build process is a collective effort and, as such, these endeavours often encounter interpersonal conflicts or disagreements. A common cause of concern is the perception that the workload is not evenly distributed or compensated. A number of groups avoid difficulties by asking each member to enter into an agreement that specifies their obligation and the penalties or levies that will be imposed in the event of non-performance. In their self-build manual, the National Federation of Housing Associations (United Kingdom) includes as an appendix a sample agreement on working conditions, specifying rights and obligations (NFHA, 1988b; Fitzpatrick, 1992).

16) Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?

Much of the focus of the self-build movement has been on producing homes collectively for individual ownership. While formal organizations are created to facilitate the construction, these wind up on completion of the development, as members take on individual responsibility for their mortgage loans. In some cases, however, there is a benefit in the organization remaining in place. Where the development is undertaken by a cooperative, this is the typical approach. In other cases, such as Zenzele in Bristol (United Kingdom), the groups formed a separate management company (similar to a condominium corporation in Canada) to manage property maintenance (NFHA, 1988a).

- Did the initiative require a minimum post-occupancy tenure?

17) Were the participants committed to a minimum period of occupancy?

Normally, self-build participants are motivated by the opportunity to build their own homes to generate both below-cost housing and a sense of accomplishment. Generally, they will wish to occupy the home. There is no such commitment for participants who are not actually building their own homes. This was an issue in the two Scottish rental initiatives (Drumchapel and Balcarres). In these cases, there was a high turnover among participants and low commitment to the process (Turok, 1994; Roberts, 1995).

18) Were the participants committed to restrictions on the future sale of their units?

The primary objective of self-build is to achieve housing either of a higher quality or lower cost through the contribution of sweat equity. This inevitably results in a prolonged construction period of six months to two years. There have been some examples of rising real estate values generating a windfall gain to participants (e.g., this occurred in the Riverside development in London in the mid-1980s). As individual owners, the participants may have the right to cash out their sweat equity. In other cases, where the explicit objective is to preserve the long-term affordability of the housing, certain restrictions on resale may be imposed. Where land is secured from a public agency at a below-market rate, or public funding is involved, a restriction on capital gains may be desirable. Under the Urban Homesteading program, beneficiaries who sell the home within a prescribed period must repay the renovation loan (NFHA, 1988a; Edwards, 1989; U.S. HUD, 1991).

Financing

- Did the initiative have an approved source of financing?

19) Were the participants able to secure housing loans or mortgages as a self-build group?

The cost of housing is generally too high for households to save the cash required in advance. At the same time, the housing will be used for a long period of time so it is reasonable to take out a loan and to repay this over a fairly long period. Lenders are used to dealing with individual homebuyers or developers. They may be less familiar and less comfortable with self-build groups. The nature of the loan is different since it is made to a collective group. In addition, the group wishes to have the value of its sweat equity recognized in the lending process, perhaps in lieu of a cash down payment. The perspective of the lender can provide important insights for a group seeking similar financing. In other cases,

participants may collectively provide a cash down payment to reduce the loan amount (Rowe, 1993).

20) Did the participants develop their own or take advantage of available community loan funds?

In some cases, a group may either be unable to secure financing from a lender or does not wish to access this source, due to the cost of interest. One alternative is to develop a community loan fund or peer lending model. (Peer lending is also a way to provide security to a conventional lender.) Under the peer lending model, a group of individuals collectively agrees to cover the payments of any other member in the event of a default. The sense of a group commitment and peer pressure reinforces the obligation to meet payments or, where not possible, develop a mutually satisfactory arrangement. Habitat for Humanity has developed a revolving loan fund from grants and contributions. These funds are loaned interest free (beneficiaries pledge sweat equity in lieu of an interest payment), and as the loan is repaid the funds are recycled to pay for materials and land for another borrower. The Cape Breton Labourers' Development Company has similarly developed a revolving fund (Steele, 1988; Pomeroy, 1997).

21) Did the participants take advantage of available low-interest or interest-free loans?

In many jurisdictions, various forms of assistance, either in the form of grants or loans, may be available. In assessing the potential to adapt these initiatives to Canada, some assessment of the importance of these special financing arrangements must be considered. CMHC does provide loans to assist in project development, e.g., land options, site surveys, but generally no long-term, low-interest funding is available. Some provinces and municipalities do however have some homeowner loans, and provincial agencies should be contacted for this information (CHRA, 1997).

22) Did the participants take advantage of available foundation (i.e., non-government) funding?

Foundation funding has been identified as a possible alternate source of funding. In the United States, two large foundations LISC and the Enterprise Foundation assist in packaging financing on behalf of local groups. No such facility exists in Canada. Foundations have provided capital grants to individual projects which can assist in covering down payments; they have not generally become involved as lenders.

23) Did the participants take into account pay-as-you-go financing in their budget?

Although housing is a major capital item, some efforts have been made to reduce the initial capital cost and loan requirements. The Grow Home, developed by the McGill Affordable Homes Program, provides an approach whereby the dwelling is not completely finished: the basement and second floor remain unfinished. The occupant can subsequently complete these either through sweat equity or as financial resources permit (Rybczynski et al., 1990).

- Could the initiative operate independently of government financing and incentives?

24) Could the initiative operate independently of grants from government programs?

Many of the self-build examples reviewed in the literature were enabled by government programs and, in some cases, funding. Readers must carefully examine these examples to determine if the initiative or some part of it could work in Canada without similar government support (NFHA, 1988a,1998b; U.S. HUD, 1993).

25) Did the participants take advantage of available financial incentives?

Participants in all self-build initiatives must ensure that they review all forms of financial incentives for housing projects available in their respective regions.

26) Did the participants take advantage of available tax incentives?

The tax system in every country contains certain provisions that may benefit the self-build group, provided that they structure the organization correctly. In the United Kingdom, the government provides tax relief on mortgage interest, up to a certain level. The Livinston self-build group in

Scotland was structured to ensure that each individual qualified for this relief from the time when the construction loan began to be drawn down and interest began to accrue. Similarly, when a collective agency purchases land but subsequently the individual occupants take out individual mortgages, the development may be subject to land transfer taxes at both times. These implications should be reviewed with the local jurisdiction to determine how to minimize payment of such fees (Fitzpatrick, 1992).

27) Did the participants take into account the cost of mortgage insurance in their budget?

In Canada, legislation requires the borrower to purchase mortgage insurance if the loan amount is above 75 per cent of the lending value of the property. The cost of this insurance is set as a percentage of the loan amount ranging from 1.5 to 5.5 per cent, depending on the type of borrower and loan-to-value ratio. For a self-build group developing a multi-unit project with a high-ratio loan (85 per cent of the value) the premium will be 5.5 per cent, a considerable amount. Structuring the financing separately for each individual may assist in reducing this premium. The CMHC Centre for Public-Private Partnerships exists to help self-build groups and other affordable housing providers in making these mortgage insurance arrangements. Proponents should contact the local branch of CMHC (Fitzpatrick, 1992).

- Were all forms of equity recognized in the initiative's lending process?

28) Were the participants able to use owned land as equity?

Ownership or access to land can be an effective way to reduce the initial cost of a self-build initiative and should be investigated as a form of recognized equity by the lender.

29) Did the participants include land equity in their financial calculations?

A group which already owns property or obtains land at below-market value should include this land in the valuation of the property for lending purposes. This, in turn, lowers the effective loan-to-value ratio and any mortgage insurance premiums that may be payable.

30) Was the value of sweat equity recognized by the lenders?

Self-builders who contribute their own labour to save costs contribute to the value of the dwelling. The value of this equity is very difficult to determine. In theory, its value is the difference between the actual cost of building and the price the product will generate on the market. This is not known at the outset, although it can be estimated. Lenders are likely to provide a relatively conservative estimate of this value when determining the lending value of the property. In the Lewisham self-build project, the cost of building was approximately $40,000 and was valued by the lender at $64,000, even though its actual market value if sold was estimated to be closer to $160,000 (NFHA, 1988a).

31) Was the value of donated materials and labour recognized by the lenders?

Similar to sweat equity, donated materials add value without affecting building costs. Lenders will recognize some portion of this but, again, will tend to estimate conservatively (NFHA, 1988a; Roberts, 1995).

- Did a legal framework exist to enable financing?

32) Did the participants ensure the existence of a housing finance system in their region/country?

Among the examples of self-build from developing countries, a housing finance system that provides standardized mechanisms to secure loans and register mortgages on title does not always exist. This is, however, a central part of the Canadian housing finance system and is an important consideration when transferring mechanisms from other countries (Don Ference & Associates, 1989).

33) Was the initiatives loan secured by the property (i.e., a mortgage loan)?

In underwriting any mortgage loan, lenders seek to ensure, first, that the loan does not have a high

risk of defaulting and, second, in the event of a default that they can recover the loss through sale of the property. It is therefore typical to register the mortgage as a charge against the property so the lender has the right to sell the property and recover the loan from the proceeds. This is an effective form of security both for the lender and the self-builder who may not have any other way of securing the loan.

34) Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?

Although the property itself is normally sought as the loan security, some lenders may require a further guarantee for the loan. This may occur when the loan value is high relative to the value of the property, or where the land is not owned outright by the self-build group; for example, they may hold only a leasehold interest. A lender may seek a loan guarantee from the municipality. A lender may also ask for a personal guarantee from members of the self-build group. These guarantees make all members personally liable in the event that one member defaults. The self-build group may wish to re-evaluate its requested loan amount if it feels uncomfortable with accepting this requirement (Duke and Macleod, 1995a,1995b).

35) Did legislation in the initiative's region/country mandate lenders to provide financing to community-based groups or low-income people?

Self-build and other community-based affordable housing providers in the United States benefit from specific legislation that requires lenders to allocate a certain proportion of their funds to target low-income housing need. Such provisions do not currently exist in Canada. Therefore, the opportunities to adapt an example from the United States must take into account the potential to secure financing without this lever. Community-based institutions, such as credit unions and the Desjardins movement in Québec, are typically sympathetic to community groups, provided they have a sound business plan. In Vancouver, the VanCity Community Foundation has a specific mandate to facilitate loans to non-traditional borrowers (Driscoll, 1996).

36) Did the participants secure the services of a notary or legal advisor?

In securing financing, especially when individuals within a group are personally implicated for the debt of the entire group, it is highly advisable to retain legal advice. In addition to assisting in the financing arrangements, this advisor can help in contracts with other professionals and contractors, as well as in preparing the participants' agreements (NFHA, 1988a; Duke and Macleod, 1995a,1995b).

- Did the initiative meet the loan conditions of the lender?

37) Did the participants fulfill the conditions of their construction loan?

Typically, project financing falls into two categories. The first is a short-term construction loan, which is essentially a line of credit against which advances are made to cover construction costs. Interest accrues as the loan is drawn down and no payments are made during this period. The second is the long-term financing which is repaid over a longer period. To receive construction advances, the work in place must be certified (normally by the project architect). In the event that the group fails to complete work, advances may be delayed or not made (Wilkinson and Kardash, 1992).

38) Did the initiative's costs remain within the lender's approved loan amount?

In budgeting the costs of building, the self-build group must try to estimate the expenses that will be incurred and for which it will require a loan. The lender will then assess the amount that it is prepared to advance to the project. In the event of underestimates (and the lender is not prepared to provide an increase to the loan amount), the self-builders will have difficulty completing the project or will have to secure capital from another source, perhaps their own savings. It is important that the construction cost estimates be undertaken carefully. Either the project architect or a quantity surveyor can assist with this (Fowler, 1993).

39) Could the participants proceed with their initiative without a down payment?

Where the group is contributing a significant amount of sweat equity, this may be recognized in lieu of a cash down payment. This will enable the project to assist lower-income households that have no accumulated savings for a down payment. Sponsorship by a community group that has a track record with the lender can provide further comfort to a lender in accepting this form of down payment.

40) Did the initiative obtain financing on a group (i.e., not individual) basis?

A self-build group may seek financing as a legal entity or act as an umbrella organization within which individual members seek mortgage loans. Typically, the construction financing is taken out as a blanket mortgage by the entire group. On completion, title is separated and each individual mortgage registered. The construction loan is then repaid and the legal entity dissolved (Fitzpatrick, 1992).

41) Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?

Where the initiative requires a cash down payment, it may be necessary for the members to secure this from non-traditional sources such as friends and relatives. This may occur in situations where the lender recognizes only a portion of the sweat equity. Once the property is completed and can be more accurately appraised, it may be possible to obtain a higher level of financing. However, in the meantime, the project would not be able to proceed without these informal loans.

Design

- Would the initiative meet national and local building codes in Canada?

42) Were the products approved and tested by a testing agency?

All products and materials used in the construction of a building in Canada must adhere to Part 2 of the National Building Code. As the primary function of this framework is to analyze the applicability of initiatives (frequently from outside Canada) to the Canadian context, this issue is quite relevant. This is particularly true in the analysis of projects from the United Kingdom and the developing world where self-build is frequently the forum for innovation in techniques and processes (NRCC, 1990; Ospina, 1985; Salas, 1988).

43) Did the initiative meet local fire, electrical and plumbing codes?

The National Building Code, provincial and municipal codes specify methods and strategies for the design and installation of fire control, electrical and plumbing systems. For any initiative to be executed in Canada, it must adhere to these regulations and must usually be verified by a local official such as a fire marshal.

44) Did the initiative meet health and safety regulations?

Any building project in Canada must meet health regulations as specified in Section 3.6 of the National Building Code and safety requirements within floor areas according to Section 3.3 of the Code. In addition, the construction site must meet requirements as specified in Part 8 of the National Building Code. (NRCC, 1990).

45) Did the initiative meet minimum room standards?

In Canada, rooms specifically designed for a given purpose must have dimensions no less than those specified in the National Building Code. For example, a bedroom space must have a height of "2.3m over not less than fifty percent of the required floor area or 2.1m over all of the required floor area" (NRCC, 1990: 208). As such, in analyzing initiatives from elsewhere in terms of their applicability to Canada, their adherence to minimum room dimensions is critical (NRCC, 1990).

46) Did the initiative have the openings and means of egress required by law?

In Canada, spaces intended for different uses and of varying sizes must provide access to exits as specified in Section 3.3 of the National Building Code. Section 3.3.1.3 discusses the specific requirements for means of egress. As building codes vary from country to country, the

applicability of a given initiative to the context of the Canadian building industry is contingent upon these requirements (NRCC, 1990).

47) Did the initiative meet federal and provincial R-value regulations for roofs and walls?

The National Building Code requires that all houses built must have a minimum insulation rating of R-20 in the walls and R-32 in the ceiling. In addition, some provincial and municipal codes may exert further energy efficiency demands on the design, and should therefore be referred to (CMHC, 1982).

- Would the initiative meet municipal zoning by-laws in Canada?

48) Was the design approved by municipal authorities?

Before a building permit is issued in any municipality, the contract drawings that describe the building's design must be approved by the local authority. As requirements vary considerably from place to place, this is perhaps the final and most critical step in terms of applicability. For example, the design for the self-help initiative in London undertaken by the Coin Street Community Builders was developed in close liaison with future occupants and the community at large; even so, the local authority fought the association and ultimately forced changes in the design before approval was granted (Lifschutz, 1995).

49) Did the initiative adhere to local building height and form restrictions?

Most municipalities, particularly those in urban areas, have by-laws in place that restrict the general scale and form a building may take. Although community consensus and tradition have historically dictated a certain consistency with regard to the particular urban or rural character of a place, in most areas this issue has become a civic legal matter. For example, in some areas all buildings must have pitched roofs.

50) Did the project conform to local setback and lot coverage regulations?

Similar to height and form restrictions, by-laws regarding setbacks and lot coverage are intended to guarantee that urban or rural patterns are consistent. They regulate the built character of a place in the hope of maintaining a certain degree of historical continuity between existing buildings and new construction. Where setbacks deal with the scale and proportion of streets as they are framed by the buildings that enfront them, lot coverage restrictions are intended to maintain a consistent scale of buildings in a given place.

51) Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?

In some municipalities, time limits are placed on the duration of a construction project. This is done primarily for two reasons: first, that construction sites are frequently boisterous and noisy places that can disturb surrounding residents and, second, that neighbours often resent the appearance of construction sites since they detract from the urban or rural character of a place. Both concerns can devalue real estate if construction is prolonged.

52) Did the initiative conform to local regulations concerning unfinished construction?

For reasons similar to those that result in by-laws restricting construction time, by-laws are frequently enacted to prevent construction projects or portions of them (like the street facade) from remaining unfinished. Such restrictions are particularly relevant to self-build projects that may have non-traditional financial structures that can result in a longer construction stage. In addition, residents often feel that construction sites represent a safety hazard, particularly if left dormant for prolonged periods.

- Were all aspects of the design thoroughly addressed?

53) Was the initiative approved by a design professional?

Depending on the region of the country in which a project is being executed, should its size or value exceed those specified in the regulations of that place, the project must be approved by a design professional. For example, in Québec any public building or house over $100,000 has to fit

these criteria. Indeed, Section 2.3.4.2 of Canada's National Building Code requires that "Structural drawings and related documents submitted with the application to build shall be dated and shall bear the authorized professional seal and signature of the designer" (NRCC, 1990: 17).

54) Were the participants involved in the design process?

One of the fundamental benefits of the self-build process as a means of procuring affordable housing is its capacity to involve future inhabitants not only in the construction of their dwellings but also in the design. In fact, failing to do so can put the success of the initiative in jeopardy. When participants feel that the design process is being dictated to them, such an approach can result in higher vandalism, low motivation, apathy and a lack of social cohesion the very problems that self-build can alleviate. For example, the 10th of Ramadan Core Housing scheme in Egypt provided only a minimal level of amenity and a set of plans of dwelling completion; the result was that occupants ignored the plans, hired professionals to do the work, and the project was deemed a slum by officials (Wilkinson and Kardash, 1992).

55) Were the initiative's design objectives defined and agreed upon?

Having a clear, unified vision of what participants expect as a result of their efforts is a significant factor in their willingness to overcome the difficulties that any initiative will face. This is particularly true of collective self-help, whereby a diverse group of individuals, often with different expectations of both the process and the product of self-build, must work together to achieve a common goal. In fact, participants in the Maconochies Wharf Housing Scheme overthrew their organizing committee halfway through the process and, despite their ultimate satisfaction with the finished product, declared that the process of conflict resolution was so arduous that they would never embark on another self-build project (Edwards, 1989; CMHC, 1995).

56) Did the initiative's design address prevailing urban or rural patterns?

One of the implicit problems in housing a significant number of people affordably is that it is cheaper to build one large building than to build many small ones. In addition, much of Canada's existing housing stock in both rural and urban areas consists of single detached units, duplexes or triplexes that date back 60 years or more to a time when the construction process was vastly different from what it is today. Moreover, the way buildings were built in a certain area reflects both the culture and lifestyle of that place. As such, any design must take into account the subtleties intrinsic to that way of building, particularly when building a multi-unit housing project. For example, the large scale housing projects in Chicago in the 1960s, as well as contributing to social decay, served to ostracize those who lived in them from the rest of the city because they ignored urban patterns (Jacobs, 1961).

57) Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?

Throughout the cycle of homeowners' lives, their needs can change drastically. Shifting patterns of family life exert varying demands on a dwelling. The capacity to alter a dwelling or use it differently in response to such changes can be a great advantage to inhabitants and can relieve them of having to relocate. Since the self-build process can be arduous and can often be the sole means of providing homeownership for some participants, such moves can be financially perilous (Lifschutz, 1995).

58) Was the relationship between public and private space addressed in the design?

Frequently neglected in housing design is the need not only for privacy but for vital public space where neighbours can meet. The relationship between the interior of a house and the street, court or square onto which it fronts is vital in allowing social interaction and a community to thrive. One of the primary ancillary benefits of the self-build process is its capacity to instill a sense of community among participants; the physical design must not stifle this potential. Elements, such as a limited visual connection between the street or court and a dwelling interior,

and a favourable place to sit outside one's dwelling, can contribute to the vitality of the street life (Vale, 1997; Hertzberger, 1988).

- Was the initiative designed for a northern climate/Western culture?

59) Did the building's form lend itself to a northern climate?

The overall form of a building can have a significant impact on its capacity to cope with the exigencies of climate. For example, buildings in northern climates were frequently built with a low surface-area-to-volume ratio to minimize the building's exposure to the elements, with steeply pitched roofs to shed snow. Although technology can overcome such factors, buildings whose forms reflect their climate are often more energy efficient and less costly to maintain (Hix, 1977).

60) Did the design specifications meet Canadian R-value requirements?

Since home heating accounts for a substantial portion of the burden put on energy reserves, Canada sets regulations for the insulation value of roofs and walls of new construction as mentioned in #47. By reducing the amount of energy lost through the building envelope, both environmental degradation and monthly heating bills can be reduced dramatically.

61) Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?

Monthly energy costs and the consumption of hydro-electric power can be vastly reduced by the use of building features that contribute to an air-tight building envelope and efficient environmental system. Elements such as air-tight doors and heat recovery ventilators are affordable and available. Perhaps the most significant results can come from the use of energy-efficient windows. These include features such as double or triple glazing and thermal bridge protection (CMHC, 1982).

62) Were the building materials chosen for harsh weather resistance?

In most of Canada, with the exception of south coastal British Columbia, the weather is prone to extremes of both temperature and humidity. Each can be very wearing on building surfaces and, when combined, the two place most building materials under extreme duress. The selection of reliable building materials can therefore significantly prolong the life of a building. Materials such as brick, stone, protected wood and metals tend to perform better over time than unprotected wood, stucco or plaster (Allen, 1990).

63) Did the unit layout conform with regional lifestyle norms?

People in the various regions of Canada live differently according to differences in climate, culture and tradition. For example, in south coastal British Columbia, people tend to spend a greater portion of the year out of doors because of the favourable climate; as such, a design which provided no outdoor spaces would be ill suited to the lifestyle of that region. An initiative's applicability to Canada is therefore dependent on regionality (Hix, 1977).

64) Did the project provide for the parking needs of its inhabitants?

Since most Canadians are car owners, the integration of parking into a scheme is important, particularly if the scheme originated outside of Canada. In the developing world and parts of Europe the incidence of car ownership is not as widespread as in Canada and, as a result, parking plays a less significant role in building design. It is perhaps more important how parking is provided than that it is provided at all, since large open parking lots are acutely destructive to urban patterns and consequently to the capacity of streets to form a safe, vital public space where people can meet and communities can be sustained (Hertzberger, 1988).

65) Did the project utilize "green" building products?

The building industry in general, and the housing market in particular, account for a significant portion of the depletion of resources in our environment. The production of materials that are both very affordable and readily available in the marketplace can respond in different ways to environmental degradation: through the use of

recycled building materials such as wood-fibre insulation; through the use of products that are renewable, that is, made of a resource that can be sustainably harvested, such as small-section timber; and through the use of materials that have a low degree of embodied energy (energy consumed in their manufacture, transportation and installation) which can help in reducing the impact the construction industry has on environmental degradation (Patkau and Patkau, 1997; Hix, 1977).

- Was an economic study made of the design?

66) Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?

Since many self-build initiatives are financed cooperatively or as not-for-profit organizations, their financial frameworks can frequently be unorthodox in comparison with other building projects. As a result, the need for a comprehensive feasibility study and reliable cost estimation is of special importance. For example, since the lender was so impressed by the group's feasibility presentation, the Community Corporation of Santa Monica was able to secure financing as a non-profit organization from a private lender that usually does not back such groups (U.S. HUD, 1987; Means, 1995).

67) Was a cost estimation of materials and processes made?

Without a reliable cost estimation of building materials and processes, the financial feasibility of any initiative is put in jeopardy. This is particularly true when the proficiency of the labour force is constrained by a limited skill level, as is the case in many self-build initiatives (CMHC, 1995; Means, 1995).

68) Was the availability of specified materials and their cost confirmed?

As a result of geographical location, time of year or variations in the economy, both the cost and availability of materials can fluctuate dramatically in a short period of time. For example, a strike by members of a woodworkers union can increase the cost of lumber significantly. As such, confirming that materials are available when needed at a price that fits the budget is of particular importance in the self-build process (CMHC, 1995).

69) Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?

It is required by law in Canada that the installation of plumbing and electrical systems be executed by a certified professional. In some cases, it will also be more cost effective to contract out some of the labour components of an initiative's construction. This can happen for a number of reasons, such as a change in interest rates (on land or the construction loan), or because the complexity of the installation procedure requires those with a limited skill level to devote such an inordinate amount of time to the job that costs incurred on loans during that time would cancel the cost savings of self-build. This was the case for some particular building elements at the Maconochies Wharf Housing Scheme on the Isle of Dogs in London (Edwards, 1989).

70) Was a study made of alternative cost-saving features?

The use of prefabricated or factory-made building components or systems can significantly reduce construction costs. For example, the use of prefabricated roof trusses is now standard practice in the Canadian homebuilding industry since, although they cost more than timber members, the shorter time it takes to install them makes them more cost effective. Conversely, due to location and depending on the design, in some instances building on site can be more cost effective. Both options should be studied in the context of any particular initiative as they can account for significant savings (Allen, 1990).

71) Was the self-build aspect of the initiative more cost effective than conventional build?

The potential for cost savings as a result of self-help and self-build are substantial. The process in every initiative is always unique, however, in terms of both its organizational and financial structure. Indeed, the ability to adapt and modify these structures to the specific circumstances of any initiative is often the measure of its success.

Even the most promising initiatives take a risk in embarking on the process. Therefore, an understanding of the degree to which the self-build component accounts for cost savings cannot be underestimated. For example, the sites and services scheme in Madras, India, because of its poor post-planning organization, failed to incur any significant savings as a result of self-build (CMHC, 1995; Robben, 1986).

Construction

- Was the self-build aspect of the initiative cost effective?

72) Did the initiative have a strict work schedule in place?

An essential aspect of the preparations for the construction stage of a self-build initiative is the development of a work schedule which fixes the weekly contribution of each member or household, integrates the timetable of hired sub-trades, maintains the project schedules and resolves conflicts, determines what type of work counts as a household contribution (e.g., food preparation, child care) and, ultimately, penalizes or expels members or households for repeatedly missing work. Each project will have a different work schedule, but they all must adhere to a pre-arranged and agreed-upon timetable. Members of the Maconochies Wharf Housing Scheme (Isle of Dogs, United Kingdom) had to work on site every weekend for two years; in a project administered by the Hyderabad Development Authority (India), members had to begin construction immediately while living on their allocated plots; 1,200 Habitat for Humanity volunteers built 30 houses in one week on the Cheyenne River Sioux Indian Reservation in South Dakota; and in Winnipeg 450 Habitat volunteers built two houses in one week (Fowler, 1993; Edwards, 1989; Siddiqui and Khan, 1994; Pearson, 1994; Steele, 1988).

73) Were the work schedule and duration realistic, given the skill of the labour force?

Some self-build projects take six to nine months to complete, using holidays, weekends and summer evenings, while others can take one and a half to two years. The maximum amount any single person can spend on a self-build project is about 1,100 hours per year: working four weekday evenings, the whole weekend, plus the annual holiday. Self-build participants must take great care when estimating the time needed to complete a project, given the skill of the labour force, and when determining the duration and scope of the construction work schedule. People with little or no experience in building projects can easily under or overestimate the number of hours needed for the required work. In a self-help rental scheme in the Netherlands, the number of hours needed to complete the renovation project was more than double the number of hours estimated beforehand by the participants (Rowe, 1993; Priemus and Metselaar, 1987).

74) Did participants fulfil the time requirements of their labour contribution to the initiative?

Once a work schedule is in place for the construction phase of a self-build initiative, it must be strictly maintained so the necessary project work is achieved within the allocated timeframe and so all participants know that their fellow members are fulfilling their obligations to the initiative. One of the responsibilities of the construction supervisor is to keep track of the activities and hours of the participant workers. Clashes among members can occur when some participants shirk their duties or when their level of dedication is called into question (Fowler, 1993; Edwards, 1989).

75) Could necessary additional skills and resources be secured when needed to prevent delays and added cost?

Participants in a self-build initiative should include, in the work schedule, a contingency plan for replacing workers or adding volunteers in the event of a shortage of labour due to illness or miscalculation which could result in delays and added cost. In an Egyptian self-help scheme (Helwan New Communities), 33 households ran into financial difficulties when they banded together to hire a contractor to finish their construction work and the costs incurred were higher than the loan they had obtained for the project (Wilkinson and Kardash, 1992).

76) Did volume purchasing result in cost reduction of materials?

Small orders of construction materials result in higher unit costs compared with ordering larger amounts of materials. Building a greater number of units will result in larger orders of materials but, even in a small project, volume purchasing can achieve optimum cost reductions. In Atlantic Canada, about 25 per cent of self-builders obtain materials (mostly wood) at reduced prices (Fowler, 1993; Rowe, 1993).

77) Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?

Many self-help projects fail to reach completion because of miscalculations of budgetary and labour requirements. In addition, many projects are saved from failure only through late infusions of effort and capital. An essential component of any initiative's budget is the inclusion of guaranteed financing in the event of budget overrun or a failure to meet deadlines (Fowler, 1993).

78) Did the sweat equity component of the initiative reduce labour costs and homeownership costs?

The prime reason for undertaking a self-build initiative is to lower homeownership costs through a reduction in labour costs. This sweat equity component of the initiative should result in homeownership savings of 20 to 30 per cent based on actual cost to assumed value; in some cases the savings may be as high as from 35 to 60 per cent. In a Habitat for Humanity project on the Cheyenne River Sioux Indian Reservation in South Dakota, the required 500-hour sweat equity contribution (in addition to a low down payment and low interest-free mortgage payments) resulted in houses costing only US$35,000 each (Crosbie, 1993; Rowe, 1993; Claxton, 1989; Pearson, 1994).

- Would the construction method be applicable to local conditions in Canada?

79) Was a building/construction permit issued for the initiative?

Obtaining a building permit from the municipality is an elementary prelude to any construction process. The self-build participants must determine that their submitted construction documents conform with all relevant codes, and they must budget for the cost of the permit and account for the waiting period in their timetable (Fowler, 1993).

80) Was the issue of construction safety addressed?

Among the responsibilities of the site supervisor is the careful layout of the construction site in order to avoid accidents and to prevent damaging tools and materials. All self-build participants on site must adhere to basic safety regulations devised and maintained by the supervisor. Since many self-build participants are frequently untrained and inexperienced with construction site protocol, the issue of work site safety becomes especially critical on self-build projects. With regard to security of materials, prearranged daily deliveries can prevent theft and vandalism (Fowler, 1993).

81) Was a soil test undertaken before construction began?

A common building practice on all construction sites is the administration of a soil test to ensure the integrity of the foundation. In the Maconochies Wharf Housing Scheme (Isle of Dogs, United Kingdom), the layout had to take into account possible obstructions to piling from the dock underlying the capping layer and possible problems from methane (a legacy of the region's marshy past and the subsequent filling in of the docks). A soil test of any construction site will determine whether the site had been used previously as a location for landfill or waste dumping (Edwards, 1989).

82) Did the specified wall section correspond to the required energy-efficiency standards?

Self-builders must ensure that the building specifications of their housing plans include wall sections which correspond to the energy-efficiency standards required by the National Research Council. Specifications for the amount of insulation required must conform to the National Building Code as well as to any applicable provincial and municipal codes. It is in the interest of self-

builders to construct energy-efficient homes as they will enjoy reductions in operating expenses over the following years.

83) Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?

Building specifications for the self-build initiative must be adapted to the specific region of Canada in which the project is located with regard to the suitability of the specified building materials to the local climate. Climate-resistant materials such as exterior cladding, sheathing and roof insulation must have been tested and approved by an approved testing agency and must be fire-resistant, durable and suited to the demands of the local climate.

84) Did the construction process account for local weather patterns?

Participants in a self-build initiative must ensure that their housing project is designed and built to avoid any disadvantages or dangers of local weather patterns. Such site-specific considerations include orientation of the housing with respect to prevailing winds, slope and support structure of roof with respect to expected snow load, potential for water penetration to the foundation and location of site with respect to existing flood plains and water tables. The self-builders will also have to reckon with the shorter Canadian building season: the labourers can work only during the months from April to November, with a layover during the winter months.

- Could the initiative be executed given the available skill level?

85) Did the initiative have an experienced site supervisor to oversee the construction?

A construction supervisor with knowledge and experience of the construction industry must be appointed to the site of the self-build project. The responsibilities of this supervisor include scheduling and cost estimating, taking inventory and ordering materials, coordinating deliveries and sub-trades, keeping track of activities and hours, resolving disputes, training novices and allocating tasks fairly, assuring the safety and security of the site, maintaining morale and solidarity, enforcing the project timetable and keeping the project within budget. The supervisor may be appointed from within the ranks of the members (as, for example, in the case of an Iranian self-help scheme, which chose a mason as the supervisor) or may be hired from outside (as, for example, in the case of a project in Hampstead, London, where a carpenter/welder was hired as a full-time supervisor to manage the site and train volunteers in basic building skills) (Fowler, 1993; Pour, 1988; Jackson, 1993).

86) Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?

Most self-builders use a certain amount of contract labour, sub-contracting trades to perform tasks beyond the capabilities of the initiative's participants. Canadian case studies from the 1980s demonstrate that on average only 50 per cent of construction labour is furnished by self-providing households. Self-builders must therefore ensure that they have access to the necessary sub-trades for work they cannot perform themselves and for the most difficult tasks. Since the labour contribution of the initiativeís own participants reduces overall labour costs, the fewer the sub-trades hired the more affordable will be the project. In a sites and services scheme in Villivakkam (Madras, India) where there was a high input of hired labour (masons, carpenters, plumbers, electricians) self-help savings were disappointingly low two to five per cent (Broome, 1993; Edwards, 1989; Rowe, 1993; Fowler, 1993; Robben, 1986).

87) Were experts available to train the labour force if needed?

The level of training available to self-build initiative participants will vary according to the existing skill levels, but in most instances some degree of expert training should be made available to the labour force. This training period will add time to the construction process and must be worked into the work schedule and construction budget. Most unskilled participants can undertake such tasks as painting and wallpapering while other tasks such as tiling and plastering require the advice or assistance of a professional. Training can be provided in two stages: primary

information on the construction system in general and secondary information tailored specifically to the requirements of the labourers. In many instances, the construction supervisor may be responsible for training the unskilled labourers in basic building skills (Priemus, 1984; Claxton, 1989; Fowler, 1993; Jackson, 1993).

88) Was maximum use made of the labour force within the group of participants?

In some self-build initiatives, many of the participants are already skilled in construction practices: half of the members of the Maconochies Wharf Housing Scheme (Isle of Dogs, United Kingdom) were already involved in building trades, while the other unskilled half were used as labourers; in the Dunbridge Street project (part of the Rosehaugh Stanhope initiative in Tower Hamlets, United Kingdom), the trade composition of the group was 75 per cent; and in the Arcadia Street project (another part of the Rosehaugh Stanhope initiative in Tower Hamlets, United Kingdom), the trade composition of the group was two thirds. In these instances, the participants made full use of their skilled members while allocating less demanding tasks to the unskilled members. Even in projects which do not include professional builders among their members, maximum use should be made of the existing and potential skills of each participant; for example, with the exception of electrical and plumbing work, all other work on the Mill Lane Gardening Project (Hampstead, London) was performed by unskilled volunteers and members of an association for people with learning disabilities (Edwards, 1989; Claxton, 1989; Jackson, 1993).

89) Did the building process accommodate varying skill levels of participants?

The building process of a self-build project should accommodate the varying skill levels of its participants so maximum use is made of the labourers and no one is excluded from work for being unskilled. In the Habitat for Humanity project in South Dakota 1,200 volunteers were accommodated and utilized, and in an Iranian self-help scheme, all members of the family were expected to contribute to the labour force. Good technical design permits greater access to the building process for those without building skills. Orientation and training should begin before construction and should include familiarization with construction skills, the site, responsibilities and the work schedule (Pearson, 1994; Pour, 1988; Claxton, 1989; Fowler, 1993).

90) Were the building processes simplified and clarified for the sake of the self-build participants?

Construction work is facilitated for self-build participants when the project's building processes have been simplified and clarified. Self-builders in the United Kingdom using the Walter Segal method simplified their site work by building conventional brick houses based on simple timber frame construction, as did the members of the Maconochies Wharf Housing Scheme (Isle of Dogs, United Kingdom) who employed a traditional brick construction method. Similarly, wood frame construction simplifies building work in Canada. In two related self-help schemes in Iran, the workers at the Geraia project came upon no unknown details or procedures, while the Farsia workers were alienated from both the process and the outcome. In the Admiralstrasse project (Luisenstadt, Germany), architects provided a reinforced concrete frame and slabs and invented a simple timber building system which allowed the future (untrained) occupants to erect elevations, partitions, party walls and intermediate floors in maisonettes. Self-builders can also investigate technical innovations which might make the building process more efficient and simple. In general, a self-build project can be built more simply and inexpensively using a design for a self-contained, compact building form (Bubel, 1989; Rowe, 1993; Edwards, 1989; Pour, 1988; Architectural Record, 1987; Claxton, 1989; Ribbeck, 1993).

91) Did the composition of the initiative's labour force conform to prevailing regulations governing union and non-union labour?

Self-build construction represents a competitive means of housing production to the residential construction industry. Unions may be displeased at the portion of building employment lost to do-it-yourselfers. Participants in self-build initiatives

must ensure that the work on the site conforms in all respects to prevailing labour regulations (Rowe, 1993; Priemus, 1984).

- Could the initiative be executed given the available resources in Canada?

92) Were the building requirements met using existing and available local components and materials?

Self-build participants should ensure that the necessary components and materials for their building project can be obtained locally. If they are copying the plans for a project from a different region or country, they must ensure that they have taken into account the availability of all building materials. At the design, planning and construction ordering stages of the initiative, the members must be certain that the specified materials are available in their vicinity for easy delivery or pickup. The Home Erector System (HES), an experimental housing kit from New York that is designed for ease of building, can be assembled by two people with existing and available components and no special tools (Crosbie, 1993).

93) If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?

If the necessary components and materials for a self-build project (e.g., prefabricated roof trusses) cannot be obtained locally, the initiative participants must plan to incorporate the cost of their transportation into the overall construction budget. Unforeseen delivery charges will lead to additional expenses and budget overruns.

94) Did the participants have access to the required tools?

A number of options exist to ensure that the necessary tools are available to the participants of a self-build initiative. Members can provide all or part of the needed tools; the organization of the initiative can establish or provide access to a tool bank; communal tools can be owned or rented collectively by the group (Fowler, 1993).

95) If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?

If tools not already owned by the participants are purchased or rented collectively by the members of a self-build initiative, this expense for tools will have to be incorporated into the overall construction budget (Fowler, 1993).

96) Could heavy machinery be secured if needed?

Self-builders in remote locations who require heavy machinery for their construction projects will have to ensure that the required machinery is available and accessible in their vicinity. If they cannot secure the required machinery, they will have to plan for a building process that can be executed without the unavailable machinery.

97) Were the building components standardized to facilitate assembly?

In much the same way that construction work is facilitated for self-build participants when the projectís building processes have been simplified and clarified, the prearranged standardization of building components will facilitate assembly for the workers. In the Admiralstrasse project (Luisenstadt, Germany), components were standardized to reduce their number and to facilitate assembly. The Community Corporation of Santa Monica routinely uses modular housing design and standardized housing components to reduce costs; the housing is quickly built on site or assembled in a factory and moved to the site, with building residents providing the finishing touches on the interior and exterior (Architectural Record, 1987; U.S. HUD, 1987).

- Were quality-control standards incorporated in the initiative?

98) Was a mechanism in the organizational structure of the initiative established to regulate quality control?

A responsibility of the construction site supervisor or of an individual or committee designated by the initiative's organizational structure is to establish and put into effect a mechanism for regulating the quality control of the building process and finished housing project.

99) Did the initiative have at its disposal a person with the requisite skills to inspect construction?

If the construction site supervisor or any other member within the self-build initiative does not possess the requisite skills to inspect construction and regulate the quality control of the project on an ongoing basis, the participants will have to incorporate into the initiative's budget an amount to cover the services of a construction inspector.

100) Was a contingency plan established to allow for rebuilding in the event that mistakes were made?

In the event that miscalculations or building errors in the housing project have been detected and rebuilding is deemed necessary, the participants of the self-build initiative must be prepared to budget for remedial building activity. The inclusion in the budget of a contingency plan to cover the expense of potential rebuilding is a prudent and frequently necessary consideration.

101) Did the labour force provide finishes that would be acceptable to future inhabitants?

The participants in a self-build initiative should take care to avoid the incorporation of building features and finishes which might be deemed excessive or eccentric by potential future buyers. The desire to provide a level of personalization to the self-built home should be tempered by the consideration that overly individualized finishes might compromise the eventual resale value of the house.

102) Did the self-motivation of the participants encourage self-regulating quality control?

The quality level of self-build housing projects is generally considered higher than that of conventionally built projects as a result of the self-motivation of the participants. Self-builders take part in most stages of the building process and they know exactly who was involved in the construction of their homes. This intense level of motivation and involvement results in a measure of construction quality control that is self-regulating (Claxton, 1989).

Post-Occupancy

- Did the self-build participants produce their own homes at reduced cost?

103) Did the self-provision component of the initiative reduce housing costs?

The self-provision component of a housing initiative refers to participants' labour which is limited to planning and development activities, excluding physical construction. Self-provision activities include the duties of promoter and developer of the housing project: obtaining financing, purchasing land, controlling and managing the production process. A participant in self-provision will avoid the overheads and profits paid to the builder and developer in a conventionally built project, which should result in overall project cost reductions of five to 15 per cent (Rowe, 1993).

104) Did the self-build labour component of the initiative reduce housing costs?

The self-build labour component of a housing initiative refers to participants' labour which includes physical construction. This sweat equity component of the initiative introduces the potential for savings by eliminating or reducing expenses paid to general contractors and paid labour, including savings on profit and overhead, land and materials, and wages. Self-build participation in a housing initiative should result in overall project cost reductions of 20 to 30 per cent over a conventionally built project (Rowe, 1993; Broome, 1993; Edwards, 1989; Claxton, 1989; Crosbie, 1993).

105) Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?

One of the basic objectives of a self-build housing initiative is the provision of housing for the self-builder. Whether as an individual who works solely on a single unit or as a group which works collectively to produce homes for the members of the group, self-build participants undertake their initiatives to construct houses as their own habitations. Participants who immediately sell their produced homes for profit, on the other

hand, have taken part in the initiative more for the purpose of speculation than for self-housing provision. In a group self-build initiative in the United Kingdom (Maconochies Wharf Housing Scheme, Isle of Dogs), participants who immediately sold for profit following the completion of construction engendered a feeling of resentment among the remaining members who had undertaken the project in a spirit of community-minded cooperation (Edwards, 1989; Siddiqui and Khan, 1994).

106) Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?

Self-build not only provides housing at reduced cost relative to conventionally built housing but at times makes homes affordable and accessible to people who would otherwise not be in a position to become homeowners. In other words, conventionally built housing in all forms at times proves too expensive for some potential homeowners, making self-built housing the only available option. In this respect, self-build expands the housing choices of many households, improving their access to homeownership. Neighborhood Reinvestment, an organization that administers self-help developments in many cities in the United States, found that 50 per cent of self-help participants are considered low income (having an income of less than 80 per cent of that of the region), that participants have median incomes which are 61 per cent of that of homebuyers nationally, and that 95 per cent of participant households had previously been renters. Such statistics indicate that, for many, self-help initiatives provide the sole opportunity for homeownership (Rowe, 1993; Fowler, 1993).

- Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?

107) Did the initiative have a positive financial impact on the neighbourhood?

Ancillary benefits to neighbourhoods where successful self-help projects have been achieved may include stimulation of investment in the neighbourhood, the creation of long-term affordable housing and an increased tax base. In addition, properties adjacent to the completed project may become more marketable as a result of the new initiative (Fowler, 1993).

108) If the initiative involved renovation work, were buildings saved from decline or demolition as a result?

Ancillary benefits to neighbourhoods where successful self-help renovation projects have been achieved may include the stabilization and maintenance of the neighbourhood and the stimulation of new employment, commercial and cultural opportunities. The purchase and rehabilitation of existing buildings in decline can be less expensive than new construction and may save the affected buildings from further decline or demolition (Fowler, 1993; Ribbeck, 1993; Robben, 1986).

109) Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?

Ancillary benefits to neighbourhoods where successful self-help projects have been achieved may include a reduction in the incidence of crime due to the formation of neighbourhood-watch groups instituted through the newly created community of initiative residents (Fowler, 1993; Vale, 1997).

110) Did the initiative contribute to a reduction n the incidence of vandalism compared with other conventionally built projects?

Ancillary benefits to neighbourhoods where successful self-help projects have been achieved may include a reduction in the incidence of vandalism. Residents who have contributed to the planning, design, construction and management of their own housing are far less likely to commit destructive acts against the homes of their neighbours than are residents of other housing projects who do not share a similar sense of community (Vale, 1997).

111) Was the sense of community bolstered by the collective self-help process?

Successful self-help projects may engender and enhance an ongoing sense of community among

the participants of the initiative. For the purposes of training and supervision as well as for group morale, it is preferable for the participants to work as a team on all the housing units. Embarking on a multi-unit project takes on a greater appeal in a group of 10 or more households, facilitating the process and creating a spirit of friendship and community. Upon taking occupancy of their new homes, residents have a vested interest, as a group, in neighbourhood improvement and in the creation of employment, commercial and cultural opportunities. The fulfillment of individual household requirements is realized through cooperation with other households working toward similar goals (Fowler, 1993; Edwards, 1989; Claxton, 1989).

112) If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?

Owning a home can be an essential component in reinvigorating families under pressure from poverty, neglect and social decay. A central tenet of the Habitat for Humanity program (where families pay for their Habitat homes with sweat equity, a cash down payment and no-interest mortgages) is that a family can take control over its life when it owns its own home. This newly gained control can have a positive effect on other parts of household life such as work and education (Pearson, 1994).

- Were any initiative networks maintained after project completion?

113) Were networks maintained for the purpose of building management?

The maintenance of networks developed by the initiative beyond completion date indicates that valuable resource groups can continue to function beyond the time of planning, construction and initial occupation. Neighborhood Reinvestment, an organization that administers self-help developments in many cities in the United States, encourages self-help participants to continue to use the expertise they have developed, the resources they have located and the contacts they have established. Maintenance training should also be provided for participants so they can manage and maintain the homes they have provided for themselves (Fowler, 1993).

114) Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?

The maintenance of networks developed by the initiative beyond completion date indicates that valuable resource groups can continue to function beyond the time of planning, construction and initial occupation. Networks maintained for the purpose of community provision, such as urban management networks, can allow the residents to create the conditions whereby local authorities and neighbourhood members meet to plan and administer aspects of neighbourhood management and development (Wilkinson and Kardash, 1992).

115) Were networks maintained for the purpose of conflict resolution?

The maintenance of networks developed by the initiative beyond completion date indicates that valuable resource groups can continue to function beyond the time of planning, construction and initial occupation. Networks maintained for the purpose of conflict resolution among the residents of the housing project can serve a useful purpose in mediating issues of potential disagreement in such areas as resale restriction, payment of group expenses, neighbourhood maintenance and administration.

116) Were networks maintained for the purpose of self-policing?

The maintenance of networks developed by the initiative beyond completion date indicates that valuable resource groups can continue to function beyond the time of planning, construction and initial occupation. Networks maintained (or developed) for the purpose of self-policing (i.e., neighbourhood patrol) can serve a vital role in ensuring the safety of the community's residents.

- Did participation result in increased skills and employability?

117) Were participants' managerial and organizational skill levels raised as a result of the initiative?

Aside from training in construction skills for self-build participants, some initiatives include training and education programs to develop managerial skills and expertise which are subsequently applied to the ongoing operation and self-management of the housing project following occupancy (Claxton, 1989).

118) Were skills learned in the construction phase an asset in the job market?

Ancillary benefits of self-build housing schemes (in addition to the provision of affordable housing) can include the enhancement of building skills and expertise, as well as experience in social integration, which can facilitate participants' improved prospects of employability in the construction field (Claxton, 1989).

119) Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?

A positive result of government-funded self-build housing schemes which aim to enhance employability as well as produce housing is the actual employment of participants following construction of the housing project. Eleven of 12 participants in the Zenzele scheme in the United Kingdom obtained full-time employment by the end of the scheme's duration; funding for the scheme had been provided by the Department of Social Services and Housing Corporation. Following completion of the Drumchapel Community Self-Build project in Scotland, which aimed to increase the employability of its participants, one of the 15 members obtained a job in the construction field (NFHA, 1988a; Turok, 1994).

120) If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?

Although self-build initiatives are undertaken primarily to produce housing, ancillary objectives of some government-funded projects are to provide training for the unskilled and unemployed. Orbit Housing Association in Coventry (United Kingdom), with the support of government grants, engages mainly unemployed young people from an inner city area to build basic houses through project-based training. The Balcarres Street Self-Build project in the United Kingdom received training and unemployment assistance funds to support the training aspect of the initiative, while a goal of Self-Build Schemes for Youth, also in the United Kingdom, was to enhance the skills of its participants (Claxton, 1989; Roberts, 1995; Levine, 1994a; Yarrow and Derbyshire, 1988; Bubel, 1989).

- Did self-build produce more satisfactory results than conventional build?

121) Did the self-built housing yield fewer building deficiencies than the product of conventional build?

A common incentive for undertaking a self-build initiative, aside from cost reductions, is the desire for work that is more precise than that of a general contractor and with fewer building deficiencies than conventionally built housing. Self-builders embark on their projects to obtain affordable houses of a higher quality and larger size than those available on the market (Rowe, 1993; Priemus and Metselaar, 1987).

122) Was there a greater diversity of unit types as a result of the initiative?

When members of a self-build initiative participate at the design stage of the project in the design of their individual units (both internal layout and external features), the result is a greater diversity of unit types, reflecting the personalized choices of the participants. In a German self-build project (Admiralstrasse, Luisenstadt), the future inhabitants had as much say in the internal planning as they did in arranging the elevations. A hallmark of the design of the Maconochies Wharf Housing Scheme (Isle of Dogs, United Kingdom) was the incorporation of variety into a unifying scheme both in the external features and the internal planning. Examples of instances where standardized plans (imposed on the participants without their input) had to be modified to suit the inhabitantsí

requirements are the Givat Olga project in Israel (where only the additions to the original structures represented a diversity of functional modifications) and the Helwan New Community project in Egypt (where the floor plan design, forced on the inhabitants by the authorities, was entirely inadequate) (Architectural Record, 1987; Edwards, 1989; Oxman and Carmon, 1989; Wilkinson and Kardash, 1992).

123) Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?

Participants in self-build construction and renovation projects very frequently express a high level of satisfaction with their finished work. A common response to the results of their housing initiatives—following a process of expanded choice, autonomy and participation—is a feeling of pleasure and pride. A post-occupancy evaluation of the Huizen Housing Association self-help project in the Netherlands revealed that over 90 per cent of participants were highly satisfied with the quality of the end results (Oxman and Carmon, 1989; Broome, 1993; Edwards, 1989; Priemus and Metselaar, 1987).

124) Was the housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?

Participants in self-help projects frequently declare that the housing provided by the initiative is more to their personal taste and preference than conventionally built housing. A post-occupancy evaluation of the Huizen Housing Association self-help project in Holland revealed that 74 per cent of participants took part in the initiative in order to provide for themselves a dwelling that was more to their own taste (Priemus and Metselaar, 1987).

125) Did the participants who inhabit the homes they helped build move less frequently from these homes than from other homes?

Due to the attachment formed to housing that is the fruit of their own labours, as well as to housing that has been built to individual preference, residents of self-help projects are less inclined to move from their new homes than from homes built conventionally and made available on the market. A post-occupancy evaluation of the Huizen Housing Association self-help project in the Netherlands revealed that 15 per cent of occupants claimed they would never leave their new homes, 54 per cent would continue to live in them for many years, 31 per cent would continue to live in them for a few years and nobody had any immediate plans to move (Priemus and Metselaar, 1987).

126) Were new community groups formed on completion of the initiative's housing?

The maintenance of networks developed by the initiative beyond completion date indicates that valuable resource groups can continue to function beyond the time of planning, construction and initial occupation. The development of additional networks following occupancy of the projectís housing indicates that the new community created by the self-build initiative continues to evolve and that it provides for its emerging needs.

Institutional Context

- Did a supportive framework (government and non-government) exist to facilitate self-build?

127) Was self-build explicitly recognized in the region/county's housing system?

In reviewing the international experience in self-build, it became evident that, in many countries, there is a significant level of support for this housing approach. A large network of self-build advisory organizations and consultants exists in the United Kingdom. In addition, the government allocated funding specifically to support this type of development. In Australia, a group self-build pilot scheme was initiated in 1996, providing organizational and technical assistance as well as a loan guarantee to self-builders who would not otherwise qualify for ownership housing. In evaluating the transferability of these examples to Canada, the relative level of support mechanisms must be considered (NFHA, 1988a; U.S. HUD, 1993; SACHA, 1995).

128) Was the self-build initiative subject to different codes and standards from conventionally built housing?

No evidence was found to suggest that self-builders in other developed countries benefit from a different set of regulations, with the exception of the recognition of sweat equity in the lending process. In other examples from developing counties, the enforcement of standards was, however, less rigorous and these examples may not be as readily transferable to Canada (Roberts, 1995).

129) Was a system of housing finance available (e.g., mortgage lending through a formal land registry/titling system)?

The housing finance system is an important part of the institutional context for self-build. Where self-build is formally recognized by government, the lending community will tend to be more willing to accept this construction approach and extend financing to self-build groups. Where a formal land registry system exists, as in Canada, it is relatively simple for the lender to secure the loan; therefore, self-build groups can access financing.

130) Did a network of self-build organizations exist from which participants could seek assistance?

While self-build groups seek to undertake many activities themselves with the objective of reducing building costs, they may still benefit from resource groups and advisory bodies. In the United Kingdom, for example, the Community Self Build Agency and the National Federation of Housing Associations provide technical support and advisory manuals. In Canada, the Canadian Housing and Renewal Association (CHRA) has produced an advisory document on self-build and through the Homegrown Solutions Initiative provides seed money to groups seeking to develop affordable housing, including self-build. The Canadian Housing Information Centre at CMHC also maintains and lends a wide collection of advisory documents (NFHA, 1988b; Duke and Macleod, 1995a,1995b; Pomeroy, 1997).

131) Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?

In any country, pioneering efforts are always effective in helping the housing system evolve. In Canada, the early self-build experience occurred in the first part of the century but was marginalized by an emerging housing industry. Today, self-build is re-emerging. The Pilot Self Build Scheme undertaken by the South Australia Community Housing Authority represents a current example of a demonstration initiative from which housing officials hope to learn and establish a supportive environment for self-build. In a similar way, Homegrown Solutions is promoting demonstration initiatives in Canada (Duke and Macleod, 1995a,1995b; SACHA, 1996; Pomeroy, 1997).

- Did the initiative take advantage of available technical support?

132) Did the initiative take advantage of available research and technical expertise?

One common characteristic of self-build is the long duration of the building process, a result of participants contributing their own time, which has an impact on the interest cost on construction loan advances. Recognizing this impact, the Livinston self-build group spent 18 months carefully planning and researching the project with the objective of minimizing the construction period. (Participants completed 12 dwellings in a six-month period.) Sound planning is an important step and can draw on a wide range of guides as well as technical support from various advisory agencies and consultants (Fitzpatrick, 1992).

133) Did the initiative take advantage of available technical resources?

Although some examples were fortunate in having design and construction expertise among their participants, most often it is necessary to contract these functions to paid professionals. In selecting these consultants (including an architect, quantity surveyor, legal advisor and site supervisor or construction manager), the group should interview a number of candidates and search for experience with other self-build groups. Local advisory agencies may be a source of possible

candidates. The Balcarres Street Self-Build retained the construction manager that had previously completed the Drumchapel initiative in Glasgow, based on his experience in supervising untrained youth (Roberts, 1995).

134) Did the initiative take advantage of available manuals and guidelines?

As self-build continues to expand, a number of associations have developed manuals and guidebooks to provide direction to self-builders. For example, the NFHA self-build manual in the United Kingdom (1988b); Housing Ourselves Affordably, produced by CHRA in Canada (CMHC, 1995a); and The Group Self-Build Handbook, produced by the Australia Department of Human Services (1996). Canadian self-build groups should consult with provincial housing agencies and the Canadian Housing Information Centre at CMHC.

135) Did the initiative take advantage of available community college training and expertise?

Self-builders can enhance their knowledge of the construction process through courses offered at local community colleges. The urban homesteading initiative in Portland, Oregon utilized the expertise of students enrolled in construction programs to undertake more extensive rehabilitation work. Formal training is a typical component of self-build initiatives targeting unskilled and unemployed individuals (U.S. HUD, 1991; Turok, 1994; GVWSS, 1996).

- Did the initiative take advantage of available financial aid programs?

136) Did the initiative take advantage of available government programs which assist self-build groups in securing financing?

Obtaining financing is often a barrier for self-build groups, especially those targeted to lower-income households. The amount of financing provided will, to some extent, be based on the ability of the individuals in the group to repay. Many self-build initiatives reviewed had been assisted in securing financing by some form of loan guarantee or insurance. In Canada, a number of provinces have programs to guarantee loans and, in some cases, directly finance modest-income homeownership (e.g., Nova Scotia). CMHC mortgage insurance may also be a benefit to self-build groups (SACHA, 1996; Presidentís Community Enterprise Board, 1994; Housing Corporation, 1997; CHRA, 1997).

137) Did the initiative take advantage of available government funding programs for self-build?

In addition to assisting groups in securing private financing, some government programs also provide direct funding to self-build groups. In the United Kingdom, groups that register as self-build housing associations are eligible for Housing Association grants covering a portion of the capital cost. In assessing the transferability of such initiatives to Canada, self-build proponents must assess the availability of similar funding sources. Some provinces and municipalities may have funding programs from time to time; there is no longer any funding from the federal agency CMHC.

138) Did the initiative take advantage of available community loan funds and land trusts?

Two emerging financing mechanisms, the community loan fund and land trusts may help self-build groups with limited resources that are unable to secure conventional financing. Community loan funds are capital pools built up from deposits and contributions from business and individuals in the community and are lent at below interest or interest free rates to targeted initiatives, such as affordable housing groups. The repayments are recycled back to other borrowers. Land trusts are a mechanism to hold land and enable groups to borrow against this asset (Hannley and Scott, 1995; Evoy, 1997).

139) Did the participants create their own community loan lending model as part of the initiative?

Typically, community loan funds are developed as part of a community economic development strategy, e.g., the Montréal Community Loan Association. One successful example of the community loan fund specifically dedicated to housing is the model used by Habitat for Humanity. A fund is built through contributions

and donations and the money used to cover costs of land and materials not donated. The selected occupants for Habitat homes repay this loan over time, interest free, and contribute 500 hours of sweat equity to help build housing for others (Steele, 1988; Evoy, 1997).

- Could the initiative function in the absence of community networks?

140) Did the participants investigate the possibility of registering with a self-build association if available?

Self-build initiatives can be separated into two broad categories: those undertaken by employed, semi-skilled and professional individuals seeking a mechanism to produce their own housing and those targeted at lower- and modest-income households that may also be unemployed. The first group may well have the expertise and resources to go it alone. Conversely, the second group may benefit greatly from guidance and expertise in the community. In many cases, the initiator is an organized community agency that then recruits participants.

141) Was the initiative undertaken in a region where self-build is accepted by the housing industry?

Participants in a self-build initiative must ensure that their construction project complies with all regulations and practices of the housing industry in their particular region.

142) Was the initiative undertaken in a region where the government supports community-based housing approaches?

Self-build initiatives that were undertaken in a highly supportive environment will owe much of their success to this support network. Groups seeking to transplant or adapt this experience must consider the context of their own efforts in relation to the potential level of support in Canada.

- Did the initiative meet government and industry housing regulations?

143) Did the initiative meet union regulations?

Where self-build groups retain sub-trades to undertake more technical aspects of the construction, such as plumbing and electrical work, some care must be taken to determine whether there are any restrictions in the union agreements that have an impact on the ability of union members to work alongside non-union workers (self-builders). In a number of training schemes, the self-builders are actually paid a wage and therefore become non-union paid labour (Turok, 1994; Roberts, 1995).

144) Did the initiative meet regulations concerning non-conventional building techniques?

Self-built dwellings must comply with the same building codes and regulations as conventionally built housing. In selecting construction methods, it may be desirable to seek simplified techniques. The Balcarres Street project in Edinburgh investigated the Segal method of construction and used it to build an exhibition house. On further study, advisors felt that, despite the ease of building, such structures were not suitable to Scotland and would have difficulty complying with the Scottish building regulations. Accordingly, this method was discarded in favour of prefabricated timber kit construction (Roberts, 1995).

145) Did the initiative meet regulations concerning self-built multi-unit projects?

As above (#144), self-build must comply with all normal regulations.

146) Did the participants make provision for the long-term affordability of the initiatives housing in the event of resale?

Among affordable housing groups, maintaining long-term affordability is an important consideration. Various mechanisms are available to preserve affordability. These typically separate the land from the buildings through a leasehold arrangement, potentially in combination with a land trust that holds a number of land parcels and leases the properties back to cooperative or non-profit associations (Hannley and Scott, 1995).

APPENDIX B

ANALYTICAL FRAMEWORK: STAGE 1 THE FAST TRACK—APPLICATION TO 30 SELF-BUILD INITIATIVES

APPENDIX B: ANALYTICAL FRAMEWORK: STAGE 1 THE FAST TRACK—APPLICATION TO 30 SELF-BUILD INITIATIVES

The following pages present the 30 self-build initiatives which are analyzed according to the Stage 1 (fast track) level of analysis.

All questions in the analytical framework have been worded to provide a "yes" answer if the corresponding feature of the initiative demonstrates both success as a valid self-build issue and applicability to the Canadian context. A "no" answer indicates that the corresponding feature of the initiative fails either as a valid self-build issue or in its potential applicability to the Canadian context. An "N/A" (not applicable) answer indicates that the question is not suited to that particular feature of the evaluated initiative. A blank answer indicates that insufficient information was available to answer the question. For each initiative, all available information has been incorporated into the summary and evaluation; any missing details are due to a lack of specific information in the research sources.

Table 1:
Self-Build Renovations – Givat Olga, Israel

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (i.e., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?			X
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?			X
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?			X
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?		X	
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: The project is strong in that those who live in the dwellings have a stake in their renovation, both in terms of the execution and financing of that renovation. Given that the projects involve medium- to low-density detached dwellings built of concrete, and that such renovations would encounter by-law trouble even in the most lenient municipalities, the applicability of such a concept to Canada needs to be studied. However, it represents a way that tentative government involvement can vastly improve the existing housing stock.

Table 2:
ERA Block — Zoetemeer, the Netherlands

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?		X	
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			X
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?		X	
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?		X	
	Did the initiative take advantage of available financial aid programs?			X
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: Although the construction of large-scale block housing is not as prevalent in Canada as it once was, the concept utilized in the ERA block nonetheless provides a means of alleviating the repetitive sterile character for which such blocks are frequently criticized. The execution of this kind of scheme in the context of rental tenure housing seems to limit the potential of such an approach. In addition, the fact that the new partitions must be bought from the landlord and units must be returned to their original form upon vacating, seems to further undermine the potential of such an initiative.

Table 3:
Shell Dwellings — Kockengen, the Netherlands

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?		X	
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			
	Did a legal framework exist to enable financing?		X	
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			X
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This project is innovative in that it provides inhabitants of a for-profit development with a means of individualizing their dwellings. In addition, it reveals a way in which government can encourage traditional development to provide housing to low-income earners who would otherwise be unable to own their own homes. Conversely, the project, like most similar developments, is built on the periphery of a city and, as such, contributes to the marginalization of low-income people. Should government subsidize projects to this extent, one would hope that their execution would contribute to community redevelopment, not urban decay.

Table 4:
Social Sector Self-Build — Dronten, the Netherlands

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?		X	
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: The Dronten initiative is to be commended for its flexibility. First, by exploiting the potentials of self-build, it offers an affordable alternative to traditionally high-cost social housing. Second, it does so in an innovative way, by offering a range of tenure options to its participants. Depending on their financial resources, future occupants can choose to rent, lease or buy their dwellings outright on completion. Last, occupants can, if needed, complete their dwellings as they can afford it because units are offered at various levels of completion, from empty shells to finished homes.

Table 5:
Anniversary Plan — Huizen, the Netherlands

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?		X	
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?			
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			X
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?		X	

Comments: The Anniversary Plan represents a new means of providing affordable social housing for rental tenure. By building shell dwellings and relying on occupants' sweat equity for their completion, the social housing sector not only reduces costs but also provides inhabitants with a means of personalizing their dwellings. Such a possibility is rare in the context of rental tenure housing. Participants are reimbursed for their contribution in one of two ways: they can choose payment, which leaves them subject to taxes or they can reinvest in their units by further renovation, in which case, they receive a portion of that cost back when they vacate. Either way, the government saves on labour costs.

Table 6:
Roan Court — Macclesfield, United Kingdom

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?			X
	Was the initiative's primary objective the procurement of housing?		X	
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?			X
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?			X
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?			X
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This project represents a revolutionary means of housing provision. It is a for-profit development in which the architect acts as developer, site supervisor, builder, real estate agent and architect. Such an organizational structure allows units to be sold very affordably because only one profit is taken, not five. In addition, dwellings are available at varying levels of completion, from serviced slab to finished unit, and architects and builders are on site at all times. As a result, people can choose the degree of their self-build contribution and seek assistance whenever necessary. Last, the project promotes the use of local labour and encourages people of differing backgrounds to participate.

Table 7:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?		X	
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?		X	
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This project represents perhaps the most relevant and successful means of procuring housing using collective self-build given the Canadian context. It reveals a way in which people with limited means can work together and produce high-quality housing at a significantly reduced cost. As such, it might be wise to bring to light those issues the participants believed hindered the process: its size, 46 houses (too large to manage effectively), and a lack of both managerial know-how and a clear means of conflict resolution from the beginning. Despite the hardships that these limitations introduced, those involved were happy with the results.

Table 8:
Habitat for Humanity — Cheyenne River, South Dakota, United States

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?		X	
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: There are many advantages to the way Habitat works. First, to work in any area a local chapter must be founded that acts independently, thus protecting the long-term survival of the organization, while maintaining access to expertise. Second, for a group to get the assistance of the local chapter, it must prove that sufficient community support exists for the project to work. As a result, homeownership is made possible for those who would otherwise be unable to obtain it. The example at Cheyenne River also illustrates Habitat's limitation: even in a place where the traditions and way of life are as unique as this Indian community, the houses built are essentially the same as those throughout North America.

Table 9:
Boston Commonwealth Housing Revitalization — Boston, Massachusetts, United States

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?			X
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?			X
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?			X
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?			X
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?			X
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?			X
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: Despite its expense, this initiative comprehensively illustrates a successful methodology by which extremely dilapidated public housing projects can be transformed into healthy sustainable communities. The factors that governed the initiative's favourable outcome stemmed directly from occupant involvement. They were user participation in organizational, managerial and design decision making, an extensive predevelopment research and project selection process, and adequate focus and funding placed on physical design (architecture, landscape architecture and urban design), particularly site reprogramming.

Table 10:
Coin Street Community Builders — London, United Kingdom

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?			
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?			
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?			X
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?			X
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?			X
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?			X
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative represents a very successful, although somewhat more traditional approach to self-help: that of the community-based cooperative. Such initiatives provide a healthy option to for-profit development housing, for those unable or unwilling to take the self-build, sweat equity labour route. Significant benefits in terms of cost savings and quality can be achieved with a cooperative, as this project vividly illustrates. The willingness of the participants both to take action to revitalize their community and to engage in an architectural competition as a means of bringing about that revitalization proved to be risks worth taking for the Coin Street Community Builders.

Table 11:
Cape Breton Labourersi Development Company — Sydney, Nova Scotia, Canada

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?			X
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?			X
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?			X
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?		X	
	Did self-build produce more satisfactory results than conventional build?			X
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?			X
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This project is strong and innovative in that it reveals a means by which an existing organization can engage in self-help to improve the housing situation of its members. In addition, this example illustrates a financial and organizational structure that effectively allows people to work together to help themselves independently of government financing. It does so in a manner that protects the community investment from profit selling by using a lease-to-own arrangement. Unfortunately, cost saving innovation does not extend to the design or construction of dwellings. Despite this, the initiative is a good example of community-based self-help.

Table 12:
Cardiff Place Co-Housing — Victoria, British Columbia, Canada

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?		X	
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?			
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?			X
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?		X	
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?		X	
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative has two marked characteristics. The first involves a traditional developer in the procurement of self-help housing. By so doing, the project represents something of a hybrid between for-profit housing development and self-procurement, whereby participants can contribute to the final form of their housing environment with a quite limited self-help contribution. The second characteristic, which sets this project apart, was the capacity of this process to allow people of very different incomes to be housed. Conversely, the most pronounced drawback to the co-housing strategy as it was executed in this instance, was the inability of the initiative to produce housing at a below-market value.

Table 13:
Community Corporation — Santa Monica, California, United States

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?		X	
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?			
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?			X
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?		X	
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?		X	
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: The Community Corporation was founded for a specific purpose, the procurement of affordable housing. Proceeding toward this goal, the corporation managed to access funding under existing federal programs and generate local support in the private sector. After having done this, it waited and bought a distressed property whose tenants were in severe need and then renovated it using funds from a commercial lender and a non-profit general contractor willing to manage self-build labour. The initiative was incredibly successful. As such, the scale, diverse sources of financing and broad base of community support that allowed for the initiative's success are principles that can be applied in Canada.

Table 14:
The Incremental Development Scheme — Pakistan

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X	X	
	Was the initiative's primary objective the procurement of housing?			
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?		X	
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?		X	
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?			X
	Were quality-control standards incorporated in the initiative?		X	
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?		X	

Comments: This project shows a way in which limited government involvement can stimulate community self-provision. By providing a sufficient amount of land such that no premium on sales was possible, speculation was prevented. In addition, the project provided a secure fund for each block into which residents could pay to improve infrastructure for themselves. That the resultant groups were neither too small to amass sufficient funds nor too large to benefit directly from their contribution, was the key to the success of the initiative. As such, the significance of the issue of scale in self-help community development is surely transferable to the Canadian context.

Table 15:
AVP Foundation — Bogota, Colombia

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?			
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?			X
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?			X
	Were quality-control standards incorporated in the initiative?		X	
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: Although this project is not outwardly applicable to the Canadian context, some of the processes of its realization are. This initiative vividly illustrates the potential of apparently diverse groups to work together in partnership to achieve common housing goals using self-help. By pooling their resources, these groups were able to achieve collectively what would have been inconceivable alone. In addition, by working together the size of the initiative enabled the participants to develop building techniques that could be executed easily and quickly by unskilled labour and, as a result, realize cost savings as high as 50 per cent.

Table 16:
10th of Ramadan Core Housing Scheme — 10th of Ramadan, Egypt

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?			
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?		X	
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?		X	
Construction	Was the self-build aspect of the initiative cost effective?		X	
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?		X	
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?		X	
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?			X
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?			X
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?			X
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?		X	

Comments: This project highlights possible pitfalls that have the capacity to undermine the success of a self-help initiative. The inherent potentials of the self-help process are higher quality and greater affordability as a result of significant user participation. The 10th of Ramadan Scheme expects participants to manage the completion of their core dwellings without having any say in their design. In addition, dwelling completion is expected to progress in the complete absence of technical expertise. As a result, plans were rarely followed and completion work was contracted out for higher prices than the initiative provided for.

Table 17:
Sites and Services — Villivakkam, Madras, India

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?		X	
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?		X	
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?		X	
Construction	Was the self-build aspect of the initiative cost effective?		X	
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?			X
	Could the initiative be executed given the available local resources in Canada?			X
	Were quality-control standards incorporated in the initiative?		X	
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?		X	
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?		X	
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?		X	
	Did self-build produce more satisfactory results than conventional build?		X	
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: The socioeconomic context in which the participants engaged in this self-help scheme, in addition to its vast scale make the transference of its methodology to the Canadian context unviable. Moreover, the sites and services approach is unrealistic given the culture of housing in Canada. Despite this, one can learn from this project that the need for an inclusive institutional framework that is accessible throughout the life of the initiative is paramount for its ultimate success, both in terms of affordability and housing quality. This framework might exist purely for the execution of the project or could be a permanent governmental service.

Table 18:
Land-Share Self-Build — Manangkasila, Bangkok, Thailand

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?		X	
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?			
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?			X
	Did the initiative take advantage of available financial aid programs?			X
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: Like other examples from the developing world, this initiative might best be analyzed in terms of what can be learned from it as opposed to assessing its direct applicability to the Canadian context which is, of course, marginal. As such, it is the design concept relative to its given circumstances which makes this project unique. The construction system, light post and beam, is both flexible spatially and easily executed by unskilled labour. Furthermore, the organization of each block of row houses along narrow streets very much lends itself to the lifestyle of the people most of whom make their livings running small shops. Thus, a large number of people are housed very well in an extremely small area.

Table 19:
Self-Initiated Self-Build — New Geraia, Iran

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?			X
Financing	Did the initiative have an approved source of financing?			X
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?			X
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?			X
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?		X	
	Could the initiative be executed given the available skill level?		X	
	Could the initiative be executed given the available local resources in Canada?			X
	Were quality-control standards incorporated in the initiative?			X
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?		X	
	Did the initiative take advantage of available technical support?		X	
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?			X

Comments: At first glance, the rationale that led to the selection of an initiative such as this one may appear unclear, because the construction of an agrarian village is clearly not applicable in the context of the Canadian housing market. In fact, this initiative vividly illustrates the ultimate potential of self-build; namely, that the users of housing know best how to design an environment that provides for their lifestyle and culture. Our culture is vastly different from that of the people of New Geraia, yet these people, with the benefit of tradition, built a place of startling ingenuity. Tradition of this kind has atrophied in our culture; self-build has the potential to allow it to redevelop.

Table 20:
Campos do Jordao — Sao Paulo, Brazil

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?			
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?			X
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?		X	
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?			
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
	Were any initiative networks maintained after project completion?			
	Did participation result in increased skills and employability?			
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative illustrates another possible potential for self-build, namely as a forum for innovation. In this example, a partnership with the research community allowed the use of innovative new technologies and methods. Because the self-build process is by nature a non-traditional means of procuring housing, it lends itself to such partnerships. Exploiting the potential of new technologies and innovative methods can both improve the quality of housing and its affordability as this example clearly illustrates. As such, while the direct applicability of this kind of project needs further study, the principles that underlie its execution are transferable to the Canadian context.

Table 21:
Balcarres Street Self-Build — Edinburgh, Scotland

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?		X	
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?		X	
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative provides a good example of a multi-faceted approach. It reveals some important lessons in terms of accessing additional funding outside the housing sector. Unlike self-build for ownership, the primary objective here was not reduced costs, but combining training and housing. The initiative is unique in forming a workers' cooperative in which participants were paid for their labour, through employment programs, since renters do not benefit from sweat equity.

Table 22:
Livinston Self-Build — Edinburgh, Scotland

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?		X	
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative focussed solely on producing individual dwellings of a higher quality than participants felt they could secure, at the same cost, on the market. Participants were white collar professionals who were semi-skilled and possessed much of the expertise needed to achieve their objective. The key success factor in this project was the objective of minimizing the duration of the construction period, coupled with purposeful recruiting of skilled group members. Because it was entirely self-funded, it may be difficult to transfer this initiative as a low-income model. Despite this, there are still a number of valuable lessons to be learned from this scheme in terms of structure, planning and site management.

Table 23:
Zenzele Self-Build Association — Bristol, United Kingdom

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?		X	
	Did the initiative meet municipal zoning by-laws in Canada?		X	
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?			X
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			X
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: As this project benefited from capital funding from a government program, the extent to which it can be replicated in Canada is somewhat limited. However, it still provides a powerful illustration of how unemployed and relatively untrained individuals can solve their housing need with some assistance and direction from housing professionals. It also reveals that flexibility in income assistance and unemployment programs can facilitate success in enabling lower income and unemployed self-builders to participate in these initiatives.

Table 24:
Riverside Housing Association — London, England

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			X
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: As a good example of a grass-roots initiative, this project illustrates the key role that a single individual can have in providing the leadership needed to move from an idea to reality. In addition, it shows the important role a tangible site can play in maintaining group interest. In this instance, securing a site and developing a design was an important step in marketing the scheme and recruiting participants. Furthermore, the role of government in facilitating the land purchase through a loan was a key element.

Table 25:
307E 10 St. Homesteaders Association — New York, New York, United States

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative's acquisition of an existing property had the benefit of addressing affordable housing need while improving the image of the neighbourhood. Although rehabilitation is risky in that accurate cost estimation is often difficult, this project was a success. Moreover, the involvement of a skilled engineer was crucial in making the judgment to proceed with the rehabilitation. In fact, the initiative was facilitated by a federal funding program focussed on urban rehabilitation. At this time, renovation funding remains available in Canada so there may be opportunities to pursue this approach.

Table 26:
Drumchapel Community Self-Build — Glasgow, Scotland

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?		X	
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?			X
	Did the initiative meet municipal zoning by-laws in Canada?			X
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?		X	
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: Although focussed on addressing housing need through rehabilitation of existing stock, this initiative managed to incorporate a heavy emphasis on training. This was, in part, due to the use of funds from the education and training sector. As such, it illustrates the need to balance objectives carefully. Like other examples that involved self-build rental housing, there was a much lower level of commitment on the part of the participants.

Table 27:
Urban Homesteading — Portland, Oregon, United States

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?		X	
	Did the initiative require a minimum post-occupancy tenure?	X		
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?		X	
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?		X	
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?	X		
	Did the initiative meet government and industry housing regulations?	X		

Comments: This is a successful initiative in that it recycled underused and deteriorating housing stock to address affordable housing need. This approach may be transferable to cities in Canada in areas with declining physical conditions that are prone to outright abandonment. However, funding for property acquisition in such a scenario is the critical success factor. In addition, the tight time limit on completion of construction work tends to mitigate against self-renovation in favour of contracting the work out to professional builders. Adapting this process to provide a longer period of time to complete the work may facilitate greater success.

Table 28:
Sandy Merriman House — Victoria, British Columbia, Canada

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?		X	
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?		X	
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?		X	
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?		X	
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?	X		
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative illustrates a creative means of packaging a multi-sourced funding strategy. Because funding for affordable housing is limited in Canada, seeking financing from a range of agencies will likely become the norm in Canada. Although the objective was to create an emergency shelter, the link to funding in labour and training ministries resulted in a significant reorientation of the initiative into skills development and ultimately self-build.

Table 29:
Group Self-Build — South Australia

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?		X	
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?		X	
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?	X		
	Did the initiative meet the loan conditions of the lender?	X		
Design	Did the initiative meet national and local building codes?			X
	Did the initiative meet municipal zoning by-laws in Canada?			X
	Were all aspects of the design thoroughly addressed?			X
	Was the initiative designed for a northern climate/Western culture?			X
	Was an economic study made of the design?	X		
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			X
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?	X		
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?	X		
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?	X		
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: This initiative has strong potential for transferability to Canada. By recognizing sweat equity in lieu of a down payment, providing technical assistance and guaranteeing loans, the government enabled modest-income households to access homeownership without ongoing housing subsidies. As a pilot project, this initiative should be monitored for possible lessons for Canada. In fact, a review of the pilot scheme was completed in November 1996: basically the SACHA board endorsed the continuation of Group Self-Build (GSB) for a further 12 months and supported a set of recommendations aimed at fine-tuning the GSB arrangements.

Table 30:
Self-Build Terraced Housing — Vallingby, Sweden

Category	Critical Questions	Yes	No	N/A
Organization	Was the project a grass-roots initiative (e.g., not government initiated)?	X		
	Was the initiative's primary objective the procurement of housing?	X		
	Was the initiative part of a community development strategy?	X		
	Did the participants form and maintain an organizational structure?	X		
	Did the initiative require a minimum post-occupancy tenure?		X	
Financing	Did the initiative have an approved source of financing?	X		
	Could the initiative operate independently of government financing and incentives?	X		
	Were all forms of equity recognized in the initiative's lending process?	X		
	Did a legal framework exist to enable financing?		X	
	Did the initiative meet the loan conditions of the lender?			X
Design	Did the initiative meet national and local building codes?	X		
	Did the initiative meet municipal zoning by-laws in Canada?	X		
	Were all aspects of the design thoroughly addressed?	X		
	Was the initiative designed for a northern climate/Western culture?	X		
	Was an economic study made of the design?		X	
Construction	Was the self-build aspect of the initiative cost effective?	X		
	Was the construction method applicable to local conditions in Canada?	X		
	Could the initiative be executed given the available skill level?	X		
	Could the initiative be executed given the available local resources in Canada?	X		
	Were quality-control standards incorporated in the initiative?	X		
Post-occupancy	Did the self-build participants produce their own homes at reduced cost?	X		
	Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?	X		
	Were any initiative networks maintained after project completion?	X		
	Did participation result in increased skills and employability?			X
	Did self-build produce more satisfactory results than conventional build?		X	
Institutional context	Did a support framework (government and non-government) exist to facilitate self-build?			X
	Did the initiative take advantage of available technical support?	X		
	Did the initiative take advantage of available financial aid programs?		X	
	Could the initiative function in the absence of community networks?		X	
	Did the initiative meet government and industry housing regulations?	X		

Comments: Although this project was originally planned as a private rental development, the project's developers responded to interest from tenants to undertake the self-build process. Despite occupying as renters, the participants benefited from quality upgrades or free rent over a given period to reflect their contribution of sweat equity. Initially, many more households were interested but declined when they found they could occupy only as renters; they were seeking homeownership opportunities.

APPENDIX C:

ANALYTICAL FRAMEWORK: STAGE 2 DETAILED EVALUATION—APPLICATION TO FIVE SELF-BUILD INITIATIVES

APPENDIX C: ANALYTICAL FRAMEWORK: STAGE 2 DETAILED EVALUATION—APPLICATION TO FIVE SELF-

The following pages present the five self-build initiatives which are analyzed according to the Stage 2 (Detailed Evaluation) level of analysis. For each of the initiatives, six sub-tables (one for each of the categories) and a sheet of textual analysis are provided (Tables 31 through 35).

The questions in the tables are numbered sequentially for direct reference to the guidebook containing further description and elaboration of the related self-build issues and considerations (Appendix A: Guidebook to the Analytical Framework).

Table 31A
Habitat for Humanity — Cheyenne River, South Dakota, United States

	Category: Organization	Yes	No	N/A
	Was the project a grass-roots initiative (e.g., not government initiated)?			
1.	Was the project formed by a core of motivated community leaders?	X		
2.	Did the participants take advantage of available professional consultation?	X		
3.	Were participants required to meet specified eligibility criteria?	X		
4.	Did recruitment to the initiative take into account the skills and expertise of potential participants?		X	
	Was the initiativeís primary objective the procurement of housing?			
5.	If the initiative had multiple objectives, was the primary objective the procurement of housing?	X		
6.	Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?	X		
7.	Was training made available for unskilled participants?	X		
8.	Were low-income or unemployed people allowed to participate in the initiative?	X		
	Was the initiative part of a community development strategy?			
9.	Was the objective of the initiative to build a stronger community?	X		
10.	Was the objective of the initiative to develop human capacity?	X		
11.	Was the focus of the initiative a deprived area (high poverty and unemployment)?	X		
	Did the participants form and maintain an organizational structure?			
12.	Was the initiative formally incorporated?	X		
13.	Was a structure introduced for the purposed of accessing funding and financial assistance if available?		X	
14.	Did the initiative's organizational structure function as its own general contractor?	X		
15.	Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?	X		
16.	Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?	X		
	Did the initiative require a minimum post-occupancy tenure?			
17.	Were the participants committed to a minimum period of occupancy?	X		
18.	Were the participants committed to restrictions on the future sale of their units?	X		

Table 31B:
Habitat for Humanity — Cheyenne River, South Dakota, United States

Category: Organization		Yes	No	N/A
	Did the initiative have an approved source of financing?			
19.	Were the participants able to secure housing loans or mortgages as a self-build group?			X
20.	Did the participants develop their own or take advantage of available community loan funds?		X	
21.	Did the participants take advantage of available low-interest or interest-free loans?	X		
22.	Did the participants take advantage of available foundation (i.e., non-government) funding?			X
23.	Did the participants take into account pay-as-you-go financing in their budget?			X
	Could the initiative operate independently of government financing?			
24.	Could the initiative operate independently of grants from government programs?	X		
25.	Did the participants take advantage of available financial incentives?			X
26.	Did the participants take advantage of available tax incentives?			X
27.	Did the participants take into account the cost of mortgage insurance in their budget?			X
	Were all forms of equity recognized in the initiative's lending process?			
28.	Were the participants able to use owned land as equity?			X
29.	Did the participants include land equity in their financial calculations?			X
30.	Was the value of sweat equity recognized by the lenders?	X		
31.	Was the value of donated materials and labour recognized by the lenders?	X		
	Did a legal framework exist to enable financing?			
32.	Did the participants ensure the existence of a housing finance system in their region/country?			X
33.	Was the initiative's loan secured by the property (i.e., a mortgage loan)?	X		
34.	Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?		X	
35.	Did legislation in the initiative's region/country mandate lenders to provide financing to community-based or low-income people?			X
36.	Did the participants secure the services of a notary or legal advisor?			X
	Did the initiative meet the loan conditions of the lender?			
37.	Did the participants fulfil the conditions of their construction loan?			X
38.	Did the initiative's costs remain within the lenderís approved loan amount?	X		
39.	Could the participants proceed with their initiative without a down payment?		X	
40.	Did the initiative obtain financing on a group (i.e., not individual) basis?		X	
41.	Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?	X		

Table 31C:
Habitat for Humanity — Cheyenne River, South Dakota, United States

Category: Organization		Yes	No	N/A
	Would the initiative meet national and local building codes in Canada?			
42.	Were the products approved and tested by a testing agency?	X		
43.	Did the initiative meet local fire, electrical and plumbing codes?	X		
44.	Did the initiative meet health and safety regulations?	X		
45.	Did the initiative meet minimum room standards?	X		
46.	Did the initiative have the opening and means of egress required by law?	X		
47.	Did the initiative meet federal and provincial R-value regulations for roof and walls?			
	Would the initiative meet municipal zoning by-laws in Canada?			
48.	Was the design approved by municipal authorities?	X		
49.	Did the initiative adhere to local building height and form restrictions?			X
50.	Did the initiative conform to local setback and lot coverage regulations?	X		
51.	Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?			X
52.	Did the initiative conform to local regulations concerning unfinished construction?			X
	Were all aspects of the design thoroughly addressed?			
53.	Was the initiative approved by a design professional?			X
54.	Were the participants involved in the design process?		X	
55.	Were the initiative's design objectives defined and agreed upon?	X		
56.	Did the initiative address prevailing urban or rural patterns?		X	
57.	Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?	X		
58.	Was the relationship between public and private space addressed in the design?		X	
	Was the initiative designed for a northern climate/Western culture?			
59.	Did the building's form lend itself to a northern climate?	X		
60.	Did the design specifications meet Canadian R-value requirements?			
61.	Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?			
62.	Were building materials chosen for harsh weather resistance?			
63.	Did the unit layout conform with regional lifestyle norms?		X	
64.	Did the project provide for the parking needs of its inhabitants?	X		
65.	Did the project utilize "green" building products?		X	
	Was an economic study made of the design?			
66.	Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?			
67.	Was a cost estimation of materials and processes made?			
68.	Was the availability of specified materials and their cost confirmed?			
69.	Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?			
70.	Was a study made of alternative cost saving features?			
71.	Was the self-build aspect of the initiative more cost effective than conventional build?			

Table 31D:
Habitat for Humanity — Cheyenne River, South Dakota, United States

	Category: Organization	Yes	No	N/A
	Was the self-build aspect of the initiative cost effective?			
72.	Did the initiative have a strict work schedule in place?	X		
73.	Were the work schedule and duration realistic, given the skill of the labour force?	X		
74.	Did participants fulfil the time requirements of their labour contribution to the initiative?	X		
75.	Could necessary additional skills and resources be secured when needed to prevent delays and added cost?	X		
76.	Did volume purchasing result in cost reductions of materials?	X		
77.	Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?	X		
78.	Did the sweat equity component of the initiative reduce labour costs and homeownership costs?	X		
	Would the construction method be applicable to local conditions in Canada?			
79.	Was a building/construction permit issued for the initiative?	X		
80.	Was the issue of construction safety addressed?	X		
81.	Was a soil test undertaken before construction began?	X		
82.	Did the specified wall section correspond to the required energy-efficiency standards?			
83.	Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?			
84.	Did the construction process account for local weather patterns?			
	Could the initiative be executed given the available skill level?			
85.	Did the initiative have an experienced site supervisor to oversee construction?	X		
86.	Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?	X		
87.	Were experts available to train the labour force if needed?	X		
88.	Was maximum use made of the labour force within the group of participants?			
89.	Did the building process accommodate varying skill levels of participants?	X		
90.	Were the building processes simplified and clarified for the sake of the self-build participants?	X		
91.	Did the composition of the initiative's labour force conform to prevailing regulations governing union and non-union labour?			X
	Could the initiative be executed given the available resources in Canada?			
92.	Were the building requirements met using existing and available local components and materials?			
93.	If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?	X		
94.	Did participants have access to the required tools?	X		
95.	If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?			X
96.	Could heavy machinery be secured if needed?	X		
97.	Were the building components standardized to facilitate assembly?	X		
	Were quality-control standards incorporated in the initiative?			
98.	Was a mechanism in the organizational structure of the initiative established to regulate quality control?	X		
99.	Did the initiative have at its disposal a person with the requisite skills to inspect construction?	X		
100.	Was a contingency plan established to allow for rebuilding in the event that mistakes were made?			
101.	Did the labour force provide finishes that would be acceptable to future inhabitants?	X		
102.	Did the self-motivation of the participants encourage self-regulating quality control?	X		

Table 31E:
Habitat for Humanity — Cheyenne River, South Dakota, United States

Category: Organization	Yes	No	N/A
Did the self-build participants produce their homes at a reduced cost?			
103. Did the self-provision component of the initiative reduce housing costs?	X		
104. Did the self-build labour component of the initiative reduce housing costs?	X		
105. Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?	X		
106. Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?	X		
Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
107. Did the initiative have a positive financial impact on the neighbourhood?	X		
108. If the initiative involved renovation work, were buildings saved from decline or demolition as a result?			X
109. Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?	X		
110. Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?	X		
111. Was the sense of community bolstered by the collective self-help process?	X		
112. If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?			
Were any initiative networks maintained after project completion?			
113. Were networks maintained for the purpose of building management?		X	
114. Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?	X		
115. Were networks maintained for the purpose of conflict resolution?		X	
116. Were networks maintained for the purpose of self-policing?			X
Did participation result in increased skills and employability?			
117. Were participants' managerial and organizational skill levels raised as a result of the initiative?		X	
118. Were skills learned in the construction phase an asset in the job market?	X		
119. Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?			
120. If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?			
Did self-build produce more satisfactory results than conventional build?			
121. Did the self-built housing yield fewer building deficiencies than the product of conventional build?			
122. Was there a greater diversity of unit types as a result of the initiative?		X	
123. Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?	X		
124. Was housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?			
125. Did the participants who inhabit the homes they helped to build move less frequently from these homes than from other homes?			
126. Were new community groups formed on completion of the initiative's housing?			X

Table 31F:
Habitat for Humanity — Cheyenne River, South Dakota, United States

Category: Organization	Yes	No	N/A
Did a supportive framework (government and non-government) exist to facilitate self-build?			
127. Was self-build explicitly recognized in the region/country's housing system?		X	
128. Was the self-build initiative subject to different codes and standards from conventionally built housing?		X	
129. Was a system of housing finance available (e.g., mortgage lending through a formal land registry/ titling system)?		X	
130. Did a network of self-build organizations exist from which participants could seek assistance?	X		
131. Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?			
Did the initiative take advantage of available technical support?			
132. Did the initiative take advantage of available research and technical expertise?	X		
133. Did the initiative take advantage of available technical resources?	X		
134. Did the initiative take advantage of available manuals and guidelines?	X		
135. Did the initiative take advantage of available community college training and expertise?			X
Did the initiative take advantage of available financial aid programs?			
136. Did the initiative take advantage of available government programs which assist self-build groups in securing financing?			X
137. Did the initiative take advantage of available government funding programs for self-build?			X
138. Did the initiative take advantage of available community loan funds and land trusts?			X
139. Did the participants create their own community loan lending model as part of the initiative?		X	
Could the initiative function in the absence of community networks?			
140. Did the participants investigate the possibility of registering with a self-build association if available?	X		
141. Was the initiative undertaken in a region where self-build is accepted by the housing industry?	X		
142. Was the initiative undertaken in a region where the government supports community-based housing approaches?	X		
Did the initiative meet government and industry housing regulations?			
143. Did the initiative meet union regulations?			
144. Did the initiative meet regulations concerning non-conventional building techniques?			X
145. Did the initiative meet regulations concerning self-built multi-unit projects?	X		
146. Did the participants make provisions for the long-term affordability of the initiative's housing in the event of resale?	X		

Table 32A:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

	Category: Organization	Yes	No	N/A
	Was the project a grass-roots initiative (e.g., not government initiated)?			
1.	Was the project formed by a core of motivated community leaders?	X		
2.	Did the participants take advantage of available professional consultation?	X		
3.	Were participants required to meet specified eligibility criteria?	X		
4.	Did recruitment to the initiative take into account the skills and expertise of potential participants?	X		
	Was the initiativeís primary objective the procurement of housing?			
5.	If the initiative had multiple objectives, was the primary objective the procurement of housing?	X		
6.	Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?	X		
7.	Was training made available for unskilled participants?		X	
8.	Were low-income or unemployed people allowed to participate in the initiative?		X	
	Was the initiative part of a community development strategy?			
9.	Was the objective of the initiative to build a stronger community?	X		
10.	Was the objective of the initiative to develop human capacity?		X	
11.	Was the focus of the initiative a deprived area (high poverty and unemployment)?		X	
	Did the participants form and maintain an organizational structure?			
12.	Was the initiative formally incorporated?	X		
13.	Was a structure introduced for the purposed of accessing funding and financial assistance if available?		X	
14.	Did the initiative's organizational structure function as its own general contractor?	X		
15.	Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?		X	
16.	Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?		X	
	Did the initiative require a minimum post-occupancy tenure?			
17.	Were the participants committed to a minimum period of occupancy?		X	
18.	Were the participants committed to restrictions on the future sale of their units?		X	

Table 32B:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category: Organization		Yes	No	N/A
	Did the initiative have an approved source of financing?			
19.	Were the participants able to secure housing loans or mortgages as a self-build group?			X
20.	Did the participants develop their own or take advantage of available community loan funds?		X	
21.	Did the participants take advantage of available low-interest or interest-free loans?		X	
22.	Did the participants take advantage of available foundation (i.e., non-government) funding?		X	
23.	Did the participants take into account pay-as-you-go financing in their budget?			
	Could the initiative operate independently of government financing?			
24.	Could the initiative operate independently of grants from government programs?	X		
25.	Did the participants take advantage of available financial incentives?		X	
26.	Did the participants take advantage of available tax incentives?			
27.	Did the participants take into account the cost of mortgage insurance in their budget?			
	Were all forms of equity recognized in the initiative's lending process?			
28.	Were the participants able to use owned land as equity?			X
29.	Did the participants include land equity in their financial calculations?			X
30.	Was the value of sweat equity recognized by the lenders?			
31.	Was the value of donated materials and labour recognized by the lenders?			X
	Did a legal framework exist to enable financing?			
32.	Did the participants ensure the existence of a housing finance system in their region/country?			
33.	Was the initiativeís loan secured by the property (i.e., a mortgage loan)?	X		
34.	Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?			
35.	Did legislation in the initiative's region/country mandate lenders to provide financing to community-based or low-income people?	X		
36.	Did the participants secure the services of a notary or legal advisor?	X		
	Did the initiative meet the loan conditions of the lender?			
37.	Did the participants fulfil the conditions of their construction loan?			
38.	Did the initiative's costs remain within the lenderís approved loan amount?	X		
39.	Could the participants proceed with their initiative without a down payment?	X		
40.	Did the initiative obtain financing on a group (i.e., not individual) basis?			
41.	Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?			

Table 32C:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category: Organization		Yes	No	N/A
	Would the initiative meet national and local building codes in Canada?			
42.	Were the products approved and tested by a testing agency?	X		
43.	Did the initiative meet local fire, electrical and plumbing codes?	X		
44.	Did the initiative meet health and safety regulations?	X		
45.	Did the initiative meet minimum room standards?	X		
46.	Did the initiative have the opening and means of egress required by law?	X		
47.	Did the initiative meet federal and provincial R-value regulations for roof and walls?			
	Would the initiative meet municipal zoning by-laws in Canada?			
48.	Was the design approved by municipal authorities?	X		
49.	Did the initiative adhere to local building height and form restrictions?	X		
50.	Did the initiative conform to local setback and lot coverage regulations?	X		
51.	Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?	X		
52.	Did the initiative conform to local regulations concerning unfinished construction?			X
	Were all aspects of the design thoroughly addressed?			
53.	Was the initiative approved by a design professional?	X		
54.	Were the participants involved in the design process?	X		
55.	Were the initiative's design objectives defined and agreed upon?	X		
56.	Did the initiative address prevailing urban or rural patterns?	X		
57.	Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?		X	
58.	Was the relationship between public and private space addressed in the design?	X		
	Was the initiative designed for a northern climate/Western culture?			
59.	Did the building's form lend itself to a northern climate?	X		
60.	Did the design specifications meet Canadian R-value requirements?			
61.	Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?			
62.	Were building materials chosen for harsh weather resistance?	X		
63.	Did the unit layout conform with regional lifestyle norms?	X		
64.	Did the project provide for the parking needs of its inhabitants?	X		
65.	Did the project utilize "green" building products?		X	
	Was an economic study made of the design?			
66.	Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?	X		
67.	Was a cost estimation of materials and processes made?	X		
68.	Was the availability of specified materials and their cost confirmed?	X		
69.	Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?	X		
70.	Was a study made of alternative cost saving features?		X	
71.	Was the self-build aspect of the initiative more cost effective than conventional build?	X		

Table 32D:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category: Organization	Yes	No	N/A
Was the self-build aspect of the initiative cost effective?			
72. Did the initiative have a strict work schedule in place?	X		
73. Were the work schedule and duration realistic, given the skill of the labour force?	X		
74. Did participants fulfil the time requirements of their labour contribution to the initiative?			X
75. Could necessary additional skills and resources be secured when needed to prevent delays and added cost?	X		
76. Did volume purchasing result in cost reductions of materials?	X		
77. Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?			
78. Did the sweat equity component of the initiative reduce labour costs and homeownership costs?	X		
Would the construction method be applicable to local conditions in Canada?			
79. Was a building/construction permit issued for the initiative?	X		
80. Was the issue of construction safety addressed?			
81. Was a soil test undertaken before construction began?	X		
82. Did the specified wall section correspond to the required energy-efficiency standards?			
83. Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?	X		
84. Did the construction process account for local weather patterns?			
Could the initiative be executed given the available skill level?			
85. Did the initiative have an experienced site supervisor to oversee construction?	X		
86. Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?	X		
87. Were experts available to train the labour force if needed?	X		
88. Was maximum use made of the labour force within the group of participants?			
89. Did the building process accommodate varying skill levels of participants?	X		
90. Were the building processes simplified and clarified for the sake of the self-build participants?		X	
91. Did the composition of the initiative's labour force conform to prevailing regulations governing union and non-union labour?			
Could the initiative be executed given the available resources in Canada?			
92. Were the building requirements met using existing and available local components and materials?	X		
93. If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?			X
94. Did participants have access to the required tools?	X		
95. If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?			X
96. Could heavy machinery be secured if needed?			
97. Were the building components standardized to facilitate assembly?			
Were quality-control standards incorporated in the initiative?			
98. Was a mechanism in the organizational structure of the initiative established to regulate quality control?			
99. Did the initiative have at its disposal a person with the requisite skills to inspect construction?	X		
100. Was a contingency plan established to allow for rebuilding in the event that mistakes were made?			
101. Did the labour force provide finishes that would be acceptable to future inhabitants?	X		
102. Did the self-motivation of the participants encourage self-regulating quality control?	X		

Table 32E:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category: Organization	Yes	No	N/A
Did the self-build participants produce their homes at a reduced cost?			
103. Did the self-provision component of the initiative reduce housing costs?	X		
104. Did the self-build labour component of the initiative reduce housing costs?	X		
105. Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?	X		
106. Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?	X		
Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
107. Did the initiative have a positive financial impact on the neighbourhood?	X		
108. If the initiative involved renovation work, were buildings saved from decline or demolition as a result?			X
109. Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?	X		
110. Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?			X
111. Was the sense of community bolstered by the collective self-help process?	X		
112. If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?			X
Were any initiative networks maintained after project completion?			
113. Were networks maintained for the purpose of building management?			
114. Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?	X		
115. Were networks maintained for the purpose of conflict resolution?			
116. Were networks maintained for the purpose of self-policing?	X		
Did participation result in increased skills and employability?			
117. Were participants' managerial and organizational skill levels raised as a result of the initiative?		X	
118. Were skills learned in the construction phase an asset in the job market?			X
119. Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?		X	
120. If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?			X
Did self-build produce more satisfactory results than conventional build?			
121. Did the self-built housing yield fewer building deficiencies than the product of conventional build?	X		
122. Was there a greater diversity of unit types as a result of the initiative?	X		
123. Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?	X		
124. Was housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?	X		
125. Did the participants who inhabit the homes they helped to build move less frequently from these homes than from other homes?	X		
126. Were new community groups formed on completion of the initiative's housing?			

Table 32F:
Maconochies Wharf Housing Scheme — Isle of Dogs, United Kingdom

Category: Organization	Yes	No	N/A
Did a supportive framework (government and non-government) exist to facilitate self-build?			
127. Was self-build explicitly recognized in the region/country's housing system?	X		
128. Was the self-build initiative subject to different codes and standards from conventionally built housing?			
129. Was a system of housing finance available (e.g., mortgage lending through a formal land registry/ titling system)?			
130. Did a network of self-build organizations exist from which participants could seek assistance?	X		
131. Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?		X	
Did the initiative take advantage of available technical support?			
132. Did the initiative take advantage of available research and technical expertise?			X
133. Did the initiative take advantage of available technical resources?			X
134. Did the initiative take advantage of available manuals and guidelines?			X
135. Did the initiative take advantage of available community college training and expertise?			X
Did the initiative take advantage of available financial aid programs?			
136. Did the initiative take advantage of available government programs which assist self-build groups in securing financing?		X	
137. Did the initiative take advantage of available government funding programs for self-build?		X	
138. Did the initiative take advantage of available community loan funds and land trusts?		X	
139. Did the participants create their own community loan lending model as part of the initiative?			
Could the initiative function in the absence of community networks?			
140. Did the participants investigate the possibility of registering with a self-build association if available?			
141. Was the initiative undertaken in a region where self-build is accepted by the housing industry?			
142. Was the initiative undertaken in a region where the government supports community-based housing approaches?	X		
Did the initiative meet government and industry housing regulations?			
143. Did the initiative meet union regulations?	X		
144. Did the initiative meet regulations concerning non-conventional building techniques?			X
145. Did the initiative meet regulations concerning self-built multi-unit projects?			X
146. Did the participants make provisions for the long-term affordability of the initiative's housing in the event of resale?		X	

Table 33A:
Community Corporation — Santa Monica, California, United States

Category: Organization		Yes	No	N/A
	Was the project a grass-roots initiative (e.g., not government initiated)?			
1.	Was the project formed by a core of motivated community leaders?	X		
2.	Did the participants take advantage of available professional consultation?	X		
3.	Were participants required to meet specified eligibility criteria?		X	
4.	Did recruitment to the initiative take into account the skills and expertise of potential participants?		X	
	Was the initiative's primary objective the procurement of housing?			
5.	If the initiative had multiple objectives, was the primary objective the procurement of housing?	X		
6.	Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?			X
7.	Was training made available for unskilled participants?	X		
8.	Were low-income or unemployed people allowed to participate in the initiative?	X		
	Was the initiative part of a community development strategy?			
9.	Was the objective of the initiative to build a stronger community?	X		
10.	Was the objective of the initiative to develop human capacity?	X		
11.	Was the focus of the initiative a deprived area (high poverty and unemployment)?	X		
	Did the participants form and maintain an organizational structure?			
12.	Was the initiative formally incorporated?	X		
13.	Was a structure introduced for the purposed of accessing funding and financial assistance if available?	X		
14.	Did the initiative's organizational structure function as its own general contractor?		X	
15.	Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?		X	
16.	Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?	X		
	Did the initiative require a minimum post-occupancy tenure?			
17.	Were the participants committed to a minimum period of occupancy?	X		
18.	Were the participants committed to restrictions on the future sale of their units?	X		

Table 33B:
Community Corporation — Santa Monica, California, United States

Category: Organization		Yes	No	N/A
	Did the initiative have an approved source of financing?			
19.	Were the participants able to secure housing loans or mortgages as a self-build group?	X		
20.	Did the participants develop their own or take advantage of available community loan funds?	X		
21.	Did the participants take advantage of available low-interest or interest-free loans?	X		
22.	Did the participants take advantage of available foundation (i.e., non-government) funding?	X		
23.	Did the participants take into account pay-as-you-go financing in their budget?			
	Could the initiative operate independently of government financing?			
24.	Could the initiative operate independently of grants from government programs?		X	
25.	Did the participants take advantage of available financial incentives?	X		
26.	Did the participants take advantage of available tax incentives?		X	
27.	Did the participants take into account the cost of mortgage insurance in their budget?			
	Were all forms of equity recognized in the initiative's lending process?			
28.	Were the participants able to use owned land as equity?	X		
29.	Did the participants include land equity in their financial calculations?	X		
30.	Was the value of sweat equity recognized by the lenders?	X		
31.	Was the value of donated materials and labour recognized by the lenders?			
	Did a legal framework exist to enable financing?			
32.	Did the participants ensure the existence of a housing finance system in their region/country?	X		
33.	Was the initiativeís loan secured by the property (i.e., a mortgage loan)?	X		
34.	Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?		X	
35.	Did legislation in the initiative's region/country mandate lenders to provide financing to community-based or low-income people?	X		
36.	Did the participants secure the services of a notary or legal advisor?	X		
	Did the initiative meet the loan conditions of the lender?			
37.	Did the participants fulfil the conditions of their construction loan?	X		
38.	Did the initiativeís costs remain within the lenderís approved loan amount?	X		
39.	Could the participants proceed with their initiative without a down payment?		X	
40.	Did the initiative obtain financing on a group (i.e., not individual) basis?	X		
41.	Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?	X		

Table 33C:
Community Corporation — Santa Monica, California, United States

Category: Organization		Yes	No	N/A
	Would the initiative meet national and local building codes in Canada?			
42.	Were the products approved and tested by a testing agency?	X		
43.	Did the initiative meet local fire, electrical and plumbing codes?	X		
44.	Did the initiative meet health and safety regulations?	X		
45.	Did the initiative meet minimum room standards?	X		
46.	Did the initiative have the opening and means of egress required by law?	X		
47.	Did the initiative meet federal and provincial R-value regulations for roof and walls?		X	
	Would the initiative meet municipal zoning by-laws in Canada?			
48.	Was the design approved by municipal authorities?	X		
49.	Did the initiative adhere to local building height and form restrictions?			X
50.	Did the initiative conform to local setback and lot coverage regulations?	X		
51.	Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?			X
52.	Did the initiative conform to local regulations concerning unfinished construction?			X
	Were all aspects of the design thoroughly addressed?			
53.	Was the initiative approved by a design professional?			
54.	Were the participants involved in the design process?	X		
55.	Were the initiative's design objectives defined and agreed upon?	X		
56.	Did the initiative address prevailing urban or rural patterns?	X		
57.	Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?			X
58.	Was the relationship between public and private space addressed in the design?	X		
	Was the initiative designed for a northern climate/Western culture?			
59.	Did the building's form lend itself to a northern climate?		X	
60.	Did the design specifications meet Canadian R-value requirements?		X	
61.	Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?		X	
62.	Were building materials chosen for harsh weather resistance?		X	
63.	Did the unit layout conform with regional lifestyle norms?			
64.	Did the project provide for the parking needs of its inhabitants?			
65.	Did the project utilize "green" building products?			
	Was an economic study made of the design?			
66.	Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?	X		
67.	Was a cost estimation of materials and processes made?	X		
68.	Was the availability of specified materials and their cost confirmed?	X		
69.	Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?	X		
70.	Was a study made of alternative cost saving features?			
71.	Was the self-build aspect of the initiative more cost effective than conventional build?	X		

Table 33D:
Community Corporation — Santa Monica, California, United States

Category: Organization		Yes	No	N/A
	Was the self-build aspect of the initiative cost effective?			
72.	Did the initiative have a strict work schedule in place?	X		
73.	Were the work schedule and duration realistic, given the skill of the labour force?	X		
74.	Did participants fulfil the time requirements of their labour contribution to the initiative?			X
75.	Could necessary additional skills and resources be secured when needed to prevent delays and added cost?			
76.	Did volume purchasing result in cost reductions of materials?			
77.	Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?	X		
78.	Did the sweat equity component of the initiative reduce labour costs and homeownership costs?	X		
	Would the construction method be applicable to local conditions in Canada?			
79.	Was a building/construction permit issued for the initiative?	X		
80.	Was the issue of construction safety addressed?	X		
81.	Was a soil test undertaken before construction began?			X
82.	Did the specified wall section correspond to the required energy-efficiency standards?			
83.	Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?			
84.	Did the construction process account for local weather patterns?			
	Could the initiative be executed given the available skill level?			
85.	Did the initiative have an experienced site supervisor to oversee construction?	X		
86.	Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?	X		
87.	Were experts available to train the labour force if needed?	X		
88.	Was maximum use made of the labour force within the group of participants?			
89.	Did the building process accommodate varying skill levels of participants?			
90.	Were the building processes simplified and clarified for the sake of the self-build participants?		X	
91.	Did the composition of the initiativeís labour force conform to prevailing regulations governing union and non-union labour?			
	Could the initiative be executed given the available resources in Canada?			
92.	Were the building requirements met using existing and available local components and materials?	X		
93.	If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?			X
94.	Did participants have access to the required tools?	X		
95.	If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?			X
96.	Could heavy machinery be secured if needed?			X
97.	Were the building components standardized to facilitate assembly?		X	
	Were quality-control standards incorporated in the initiative?			
98.	Was a mechanism in the organizational structure of the initiative established to regulate quality control?	X		
99.	Did the initiative have at its disposal a person with the requisite skills to inspect construction?	X		
100.	Was a contingency plan established to allow for rebuilding in the event that mistakes were made?			
101.	Did the labour force provide finishes that would be acceptable to future inhabitants?	X		
102.	Did the self-motivation of the participants encourage self-regulating quality control?	X		

Table 33E:
Community Corporation — Santa Monica, California, United States

Category: Organization	Yes	No	N/A
Did the self-build participants produce their homes at a reduced cost?			
103. Did the self-provision component of the initiative reduce housing costs?	X		
104. Did the self-build labour component of the initiative reduce housing costs?	X		
105. Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?	X		
106. Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?	X		
Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
107. Did the initiative have a positive financial impact on the neighbourhood?	X		
108. If the initiative involved renovation work, were buildings saved from decline or demolition as a result?	X		
109. Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?	X		
110. Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?	X		
111. Was the sense of community bolstered by the collective self-help process?	X		
112. If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?	X		
Were any initiative networks maintained after project completion?			
113. Were networks maintained for the purpose of building management?	X		
114. Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?	X		
115. Were networks maintained for the purpose of conflict resolution?			
116. Were networks maintained for the purpose of self-policing?	X		
Did participation result in increased skills and employability?			
117. Were participants' managerial and organizational skill levels raised as a result of the initiative?	X		
118. Were skills learned in the construction phase an asset in the job market?	X		
119. Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?			
120. If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?			X
Did self-build produce more satisfactory results than conventional build?			
121. Did the self-built housing yield fewer building deficiencies than the product of conventional build?			
122. Was there a greater diversity of unit types as a result of the initiative?	X		
123. Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?	X		
124. Was housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?	X		
125. Did the participants who inhabit the homes they helped to build move less frequently from these homes than from other homes?			
126. Were new community groups formed on completion of the initiative's housing?	X		

Table 33F:
Community Corporation — Santa Monica, California, United States

Category: Organization	Yes	No	N/A
Did a supportive framework (government and non-government) exist to facilitate self-build?			
127. Was self-build explicitly recognized in the region/country's housing system?		X	
128. Was the self-build initiative subject to different codes and standards from conventionally built housing?		X	
129. Was a system of housing finance available (e.g., mortgage lending through a formal land registry/ titling system)?	X		
130. Did a network of self-build organizations exist from which participants could seek assistance?		X	
131. Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?	X		
Did the initiative take advantage of available technical support?			
132. Did the initiative take advantage of available research and technical expertise?		X	
133. Did the initiative take advantage of available technical resources?	X		
134. Did the initiative take advantage of available manuals and guidelines?			
135. Did the initiative take advantage of available community college training and expertise?			
Did the initiative take advantage of available financial aid programs?			
136. Did the initiative take advantage of available government programs which assist self-build groups in securing financing?	X		
137. Did the initiative take advantage of available government funding programs for self-build?	X		
138. Did the initiative take advantage of available community loan funds and land trusts?	X		
139. Did the participants create their own community loan lending model as part of the initiative?	X		
Could the initiative function in the absence of community networks?			
140. Did the participants investigate the possibility of registering with a self-build association if available?			X
141. Was the initiative undertaken in a region where self-build is accepted by the housing industry?			
142. Was the initiative undertaken in a region where the government supports community-based housing approaches?	X		
Did the initiative meet government and industry housing regulations?			
143. Did the initiative meet union regulations?			
144. Did the initiative meet regulations concerning non-conventional building techniques?			X
145. Did the initiative meet regulations concerning self-built multi-unit projects?			X
146. Did the participants make provisions for the long-term affordability of the initiative's housing in the event of resale?	X		

Table 34A:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization		Yes	No	N/A
	Was the project a grass-roots initiative (e.g., not government initiated)?			
1.	Was the project formed by a core of motivated community leaders?	X		
2.	Did the participants take advantage of available professional consultation?	X		
3.	Were participants required to meet specified eligibility criteria?	X		
4.	Did recruitment to the initiative take into account the skills and expertise of potential participants?	X		
	Was the initiativeís primary objective the procurement of housing?			
5.	If the initiative had multiple objectives, was the primary objective the procurement of housing?		X	
6.	Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?		X	
7.	Was training made available for unskilled participants?	X		
8.	Were low-income or unemployed people allowed to participate in the initiative?	X		
	Was the initiative part of a community development strategy?			
9.	Was the objective of the initiative to build a stronger community?	X		
10.	Was the objective of the initiative to develop human capacity?	X		
11.	Was the focus of the initiative a deprived area (high poverty and unemployment)?	X		
	Did the participants form and maintain an organizational structure?			
12.	Was the initiative formally incorporated?	X		
13.	Was a structure introduced for the purposed of accessing funding and financial assistance if available?	X		
14.	Did the initiative's organizational structure function as its own general contractor?	X		
15.	Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?		X	
16.	Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?	X		
	Did the initiative require a minimum post-occupancy tenure?			
17.	Were the participants committed to a minimum period of occupancy?		X	
18.	Were the participants committed to restrictions on the future sale of their units?	X		

Table 34B:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization		Yes	No	N/A
	Did the initiative have an approved source of financing?			
19.	Were the participants able to secure housing loans or mortgages as a self-build group?	X		
20.	Did the participants develop their own or take advantage of available community loan funds?		X	
21.	Did the participants take advantage of available low-interest or interest-free loans?		X	
22.	Did the participants take advantage of available foundation (i.e., non-government) funding?	X		
23.	Did the participants take into account pay-as-you-go financing in their budget?			X
	Could the initiative operate independently of government financing?			
24.	Could the initiative operate independently of grants from government programs?		X	
25.	Did the participants take advantage of available financial incentives?			
26.	Did the participants take advantage of available tax incentives?		X	
27.	Did the participants take into account the cost of mortgage insurance in their budget?			X
	Were all forms of equity recognized in the initiative's lending process?			
28.	Were the participants able to use owned land as equity?			X
29.	Did the participants include land equity in their financial calculations?		X	
30.	Was the value of sweat equity recognized by the lenders?		X	
31.	Was the value of donated materials and labour recognized by the lenders?	X		
	Did a legal framework exist to enable financing?			
32.	Did the participants ensure the existence of a housing finance system in their region/country?	X		
33.	Was the initiative's loan secured by the property (i.e., a mortgage loan)?	X		
34.	Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?	X		
35.	Did legislation in the initiative's region/country mandate lenders to provide financing to community-based or low-income people?		X	
36.	Did the participants secure the services of a notary or legal advisor?	X		
	Did the initiative meet the loan conditions of the lender?			
37.	Did the participants fulfil the conditions of their construction loan?	X		
38.	Did the initiative's costs remain within the lenderís approved loan amount?		X	
39.	Could the participants proceed with their initiative without a down payment?	X		
40.	Did the initiative obtain financing on a group (i.e., not individual) basis?	X		
41.	Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?	X		

Table 34C:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization		Yes	No	N/A
	Would the initiative meet national and local building codes in Canada?			
42.	Were the products approved and tested by a testing agency?	X		
43.	Did the initiative meet local fire, electrical and plumbing codes?	X		
44.	Did the initiative meet health and safety regulations?	X		
45.	Did the initiative meet minimum room standards?	X		
46.	Did the initiative have the opening and means of egress required by law?	X		
47.	Did the initiative meet federal and provincial R-value regulations for roof and walls?			
	Would the initiative meet municipal zoning by-laws in Canada?			
48.	Was the design approved by municipal authorities?	X		
49.	Did the initiative adhere to local building height and form restrictions?	X		
50.	Did the initiative conform to local setback and lot coverage regulations?	X		
51.	Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?		X	
52.	Did the initiative conform to local regulations concerning unfinished construction?			X
	Were all aspects of the design thoroughly addressed?			
53.	Was the initiative approved by a design professional?	X		
54.	Were the participants involved in the design process?		X	
55.	Were the initiative's design objectives defined and agreed upon?	X		
56.	Did the initiative address prevailing urban or rural patterns?	X		
57.	Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?		X	
58.	Was the relationship between public and private space addressed in the design?		X	
	Was the initiative designed for a northern climate/Western culture?			
59.	Did the building's form lend itself to a northern climate?	X		
60.	Did the design specifications meet Canadian R-value requirements?			X
61.	Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?	X		
62.	Were building materials chosen for harsh weather resistance?	X		
63.	Did the unit layout conform with regional lifestyle norms?	X		
64.	Did the project provide for the parking needs of its inhabitants?	X		
65.	Did the project utilize "green" building products?	X		
	Was an economic study made of the design?			
66.	Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?	X		
67.	Was a cost estimation of materials and processes made?	X		
68.	Was the availability of specified materials and their cost confirmed?	X		
69.	Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?	X		
70.	Was a study made of alternative cost saving features?		X	
71.	Was the self-build aspect of the initiative more cost effective than conventional build?			

Table 34D:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization		Yes	No	N/A
	Was the self-build aspect of the initiative cost effective?			
72.	Did the initiative have a strict work schedule in place?		X	
73.	Were the work schedule and duration realistic, given the skill of the labour force?		X	
74.	Did participants fulfil the time requirements of their labour contribution to the initiative?	X		
75.	Could necessary additional skills and resources be secured when needed to prevent delays and added cost?	X		
76.	Did volume purchasing result in cost reductions of materials?	X		
77.	Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?	X		
78.	Did the sweat equity component of the initiative reduce labour costs and homeownership costs?		X	
	Would the construction method be applicable to local conditions in Canada?			
79.	Was a building/construction permit issued for the initiative?	X		
80.	Was the issue of construction safety addressed?	X		
81.	Was a soil test undertaken before construction began?	X		
82.	Did the specified wall section correspond to the required energy-efficiency standards?	X		
83.	Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?	X		
84.	Did the construction process account for local weather patterns?	X		
	Could the initiative be executed given the available skill level?			
85.	Did the initiative have an experienced site supervisor to oversee construction?	X		
86.	Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?	X		
87.	Were experts available to train the labour force if needed?	X		
88.	Was maximum use made of the labour force within the group of participants?	X		
89.	Did the building process accommodate varying skill levels of participants?	X		
90.	Were the building processes simplified and clarified for the sake of the self-build participants?	X		
91.	Did the composition of the initiativeís labour force conform to prevailing regulations governing union and non-union labour?	X		
	Could the initiative be executed given the available resources in Canada?			
92.	Were the building requirements met using existing and available local components and materials?	X		
93.	If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?			X
94.	Did participants have access to the required tools?	X		
95.	If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?	X		
96.	Could heavy machinery be secured if needed?			X
97.	Were the building components standardized to facilitate assembly?	X		
	Were quality-control standards incorporated in the initiative?			
98.	Was a mechanism in the organizational structure of the initiative established to regulate quality control?	X		
99.	Did the initiative have at its disposal a person with the requisite skills to inspect construction?	X		
100.	Was a contingency plan established to allow for rebuilding in the event that mistakes were made?		X	
101.	Did the labour force provide finishes that would be acceptable to future inhabitants?	X		
102.	Did the self-motivation of the participants encourage self-regulating quality control?		X	

Table 34E:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization	Yes	No	N/A
Did the self-build participants produce their homes at a reduced cost?			
103. Did the self-provision component of the initiative reduce housing costs?		X	
104. Did the self-build labour component of the initiative reduce housing costs?		X	
105. Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?	X		
106. Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?			X
Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
107. Did the initiative have a positive financial impact on the neighbourhood?			X
108. If the initiative involved renovation work, were buildings saved from decline or demolition as a result?			X
109. Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?			X
110. Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?			X
111. Was the sense of community bolstered by the collective self-help process?			X
112. If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?	X		
Were any initiative networks maintained after project completion?			
113. Were networks maintained for the purpose of building management?		X	
114. Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?		X	
115. Were networks maintained for the purpose of conflict resolution?		X	
116. Were networks maintained for the purpose of self-policing?		X	
Did participation result in increased skills and employability?			
117. Were participants' managerial and organizational skill levels raised as a result of the initiative?	X		
118. Were skills learned in the construction phase an asset in the job market?	X		
119. Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?	X		
120. If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?	X		
Did self-build produce more satisfactory results than conventional build?			
121. Did the self-built housing yield fewer building deficiencies than the product of conventional build?		X	
122. Was there a greater diversity of unit types as a result of the initiative?		X	
123. Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?		X	
124. Was housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?		X	
125. Did the participants who inhabit the homes they helped to build move less frequently from these homes than from other homes?		X	
126. Were new community groups formed on completion of the initiative's housing?		X	

Table 34F:
Balcarres Street Self-Build — Edinburgh, Scotland

Category: Organization	Yes	No	N/A
Did a supportive framework (government and non-government) exist to facilitate self-build?			
127. Was self-build explicitly recognized in the region/country's housing system?	X		
128. Was the self-build initiative subject to different codes and standards from conventionally built housing?		X	
129. Was a system of housing finance available (e.g., mortgage lending through a formal land registry/ titling system)?	X		
130. Did a network of self-build organizations exist from which participants could seek assistance?	X		
131. Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?	X		
Did the initiative take advantage of available technical support?			
132. Did the initiative take advantage of available research and technical expertise?	X		
133. Did the initiative take advantage of available technical resources?	X		
134. Did the initiative take advantage of available manuals and guidelines?	X		
135. Did the initiative take advantage of available community college training and expertise?	X		
Did the initiative take advantage of available financial aid programs?			
136. Did the initiative take advantage of available government programs which assist self-build groups in securing financing?	X		
137. Did the initiative take advantage of available government funding programs for self-build?	X		
138. Did the initiative take advantage of available community loan funds and land trusts?		X	
139. Did the participants create their own community loan lending model as part of the initiative?		X	
Could the initiative function in the absence of community networks?			
140. Did the participants investigate the possibility of registering with a self-build association if available?	X		
141. Was the initiative undertaken in a region where self-build is accepted by the housing industry?	X		
142. Was the initiative undertaken in a region where the government supports community-based housing approaches?	X		
Did the initiative meet government and industry housing regulations?			
143. Did the initiative meet union regulations?		X	
144. Did the initiative meet regulations concerning non-conventional building techniques?	X		
145. Did the initiative meet regulations concerning self-built multi-unit projects?			X
146. Did the participants make provisions for the long-term affordability of the initiative's housing in the event of resale?	X		

Table 35A:
Zenzele Self-Build Association — Bristol, United Kingdom

Category: Organization	Yes	No	N/A
Was the project a grass-roots initiative (e.g., not government initiated)?			
1. Was the project formed by a core of motivated community leaders?	X		
2. Did the participants take advantage of available professional consultation?	X		
3. Were participants required to meet specified eligibility criteria?		X	
4. Did recruitment to the initiative take into account the skills and expertise of potential participants?		X	
Was the initiative's primary objective the procurement of housing?			
5. If the initiative had multiple objectives, was the primary objective the procurement of housing?			X
6. Was the focus of the initiative to provide individual ownership of housing (i.e., as opposed to capital investment)?	X		
7. Was training made available for unskilled participants?		X	
8. Were low-income or unemployed people allowed to participate in the initiative?	X		
Was the initiative part of a community development strategy?			
9. Was the objective of the initiative to build a stronger community?	X		
10. Was the objective of the initiative to develop human capacity?	X		
11. Was the focus of the initiative a deprived area (high poverty and unemployment)?	X		
Did the participants form and maintain an organizational structure?			
12. Was the initiative formally incorporated?	X		
13. Was a structure introduced for the purposed of accessing funding and financial assistance if available?	X		
14. Did the initiative's organizational structure function as its own general contractor?	X		
15. Did the initiative's organizational structure require the participants to enter into individual contracts regarding their obligations?	X		
16. Did the initiative's organizational structure continue beyond the completion of construction to the ongoing benefit of its participants?	X		
Did the initiative require a minimum post-occupancy tenure?			
17. Were the participants committed to a minimum period of occupancy?		X	
18. Were the participants committed to restrictions on the future sale of their units?		X	

Table 35B:
Zenzele Self-Build Association — Bristol, United Kingdom

Category: Organization		Yes	No	N/A
	Did the initiative have an approved source of financing?			
19.	Were the participants able to secure housing loans or mortgages as a self-build group?	X		
20.	Did the participants develop their own or take advantage of available community loan funds?		X	
21.	Did the participants take advantage of available low-interest or interest-free loans?		X	
22.	Did the participants take advantage of available foundation (i.e., non-government) funding?		X	
23.	Did the participants take into account pay-as-you-go financing in their budget?			X
	Could the initiative operate independently of government financing?			
24.	Could the initiative operate independently of grants from government programs?		X	
25.	Did the participants take advantage of available financial incentives?	X		
26.	Did the participants take advantage of available tax incentives?	X		
27.	Did the participants take into account the cost of mortgage insurance in their budget?			X
	Were all forms of equity recognized in the initiative's lending process?			
28.	Were the participants able to use owned land as equity?			X
29.	Did the participants include land equity in their financial calculations?			X
30.	Was the value of sweat equity recognized by the lenders?	X		
31.	Was the value of donated materials and labour recognized by the lenders?	X		
	Did a legal framework exist to enable financing?			
32.	Did the participants ensure the existence of a housing finance system in their region/country?	X		
33.	Was the initiative's loan secured by the property (i.e., a mortgage loan)?	X		
34.	Was the initiative able to proceed without pledging other forms of security (e.g., loan guarantees or personal covenants)?		X	
35.	Did legislation in the initiative's region/country mandate lenders to provide financing to community-based or low-income people?		X	
36.	Did the participants secure the services of a notary or legal advisor?	X		
	Did the initiative meet the loan conditions of the lender?			
37.	Did the participants fulfil the conditions of their construction loan?	X		
38.	Did the initiative's costs remain within the lenderís approved loan amount?	X		
39.	Could the participants proceed with their initiative without a down payment?			
40.	Did the initiative obtain financing on a group (i.e., not individual) basis?	X		
41.	Could the initiative proceed independently of money borrowed informally (i.e., from family and friends)?			

Table 35C:
Zenzele Self-Build Association — Bristol, United Kingdom

	Category: Organization	Yes	No	N/A
	Would the initiative meet national and local building codes in Canada?			
42.	Were the products approved and tested by a testing agency?	X		
43.	Did the initiative meet local fire, electrical and plumbing codes?	X		
44.	Did the initiative meet health and safety regulations?	X		
45.	Did the initiative meet minimum room standards?	X		
46.	Did the initiative have the opening and means of egress required by law?			
47.	Did the initiative meet federal and provincial R-value regulations for roof and walls?			
	Would the initiative meet municipal zoning by-laws in Canada?			
48.	Was the design approved by municipal authorities?	X		
49.	Did the initiative adhere to local building height and form restrictions?	X		
50.	Did the initiative conform to local setback and lot coverage regulations?	X		
51.	Did the work plan of the initiative conform to local by-laws regarding duration limits for construction?	X		
52.	Did the initiative conform to local regulations concerning unfinished construction?	X		
	Were all aspects of the design thoroughly addressed?			
53.	Was the initiative approved by a design professional?	X		
54.	Were the participants involved in the design process?	X		
55.	Were the initiative's design objectives defined and agreed upon?	X		
56.	Did the initiative address prevailing urban or rural patterns?	X		
57.	Did the design provide for the changing needs of its inhabitants over time (i.e., capacity for growth and change)?		X	
58.	Was the relationship between public and private space addressed in the design?	X		
	Was the initiative designed for a northern climate/Western culture?			
59.	Did the building's form lend itself to a northern climate?			
60.	Did the design specifications meet Canadian R-value requirements?			
61.	Did the initiative utilize winterizing building features (e.g., double doors, air-tight windows)?			
62.	Were building materials chosen for harsh weather resistance?			
63.	Did the unit layout conform with regional lifestyle norms?	X		
64.	Did the project provide for the parking needs of its inhabitants?	X		
65.	Did the project utilize "green" building products?			
	Was an economic study made of the design?			
66.	Was a feasibility study undertaken to ensure the cost and estimation effectiveness of the design?	X		
67.	Was a cost estimation of materials and processes made?	X		
68.	Was the availability of specified materials and their cost confirmed?	X		
69.	Was the cost of installation of specialized building elements (i.e., by a trained tradesperson) calculated into the budget?	X		
70.	Was a study made of alternative cost saving features?	X		
71.	Was the self-build aspect of the initiative more cost effective than conventional build?	X		

Table 35D:
Zenzele Self-Build Association — Bristol, United Kingdom

Category: Organization		Yes	No	N/A
	Was the self-build aspect of the initiative cost effective?			
72.	Did the initiative have a strict work schedule in place?	X		
73.	Were the work schedule and duration realistic, given the skill of the labour force?	X		
74.	Did participants fulfil the time requirements of their labour contribution to the initiative?	X		
75.	Could necessary additional skills and resources be secured when needed to prevent delays and added cost?			X
76.	Did volume purchasing result in cost reductions of materials?			
77.	Did the initiative have guaranteed financing in the event that construction failed to meet deadlines or the project went over budget?			
78.	Did the sweat equity component of the initiative reduce labour costs and homeownership costs?	X		
	Would the construction method be applicable to local conditions in Canada?			
79.	Was a building/construction permit issued for the initiative?	X		
80.	Was the issue of construction safety addressed?	X		
81.	Was a soil test undertaken before construction began?	X		
82.	Did the specified wall section correspond to the required energy-efficiency standards?	X		
83.	Were the materials used suited to the local climate (e.g., cladding must be extremely resilient in a northern climate)?	X		
84.	Did the construction process account for local weather patterns?	X		
	Could the initiative be executed given the available skill level?			
85.	Did the initiative have an experienced site supervisor to oversee construction?	X		
86.	Did the initiative have access to the necessary sub-trades (i.e., outside the group of participants)?	X		
87.	Were experts available to train the labour force if needed?	X		
88.	Was maximum use made of the labour force within the group of participants?			
89.	Did the building process accommodate varying skill levels of participants?	X		
90.	Were the building processes simplified and clarified for the sake of the self-build participants?	X		
91.	Did the composition of the initiativeís labour force conform to prevailing regulations governing union and non-union labour?			
	Could the initiative be executed given the available resources in Canada?			
92.	Were the building requirements met using existing and available local components and materials?	X		
93.	If materials were unavailable locally, was the cost of their transportation incorporated into the overall budget?			
94.	Did participants have access to the required tools?	X		
95.	If the initiative did not have access to the required tools, was their expense incorporated into the overall budget?	X		
96.	Could heavy machinery be secured if needed?			
97.	Were the building components standardized to facilitate assembly?	X		
	Were quality-control standards incorporated in the initiative?			
98.	Was a mechanism in the organizational structure of the initiative established to regulate quality control?	X		
99.	Did the initiative have at its disposal a person with the requisite skills to inspect construction?	X		
100.	Was a contingency plan established to allow for rebuilding in the event that mistakes were made?		X	
101.	Did the labour force provide finishes that would be acceptable to future inhabitants?	X		
102.	Did the self-motivation of the participants encourage self-regulating quality control?	X		

Table 35E:
Zenzele Self-Build Association — Bristol, United Kingdom

Category: Organization	Yes	No	N/A
Did the self-build participants produce their homes at a reduced cost?			
103. Did the self-provision component of the initiative reduce housing costs?	X		
104. Did the self-build labour component of the initiative reduce housing costs?	X		
105. Did the self-build participants inhabit the homes they built (i.e., not sell them immediately for profit)?	X		
106. Did the initiative make homes affordable and accessible to participants who would otherwise not be in a position to become homeowners?	X		
Did the self-help process enhance, regenerate or rehabilitate the neighbourhood?			
107. Did the initiative have a positive financial impact on the neighbourhood?	X		
108. If the initiative involved renovation work, were buildings saved from decline or demolition as a result?			X
109. Did the initiative help to stabilize the neighbourhood socially by lowering crime (i.e., eyes on the street)?			X
110. Did the initiative contribute to a reduction in the incidence of vandalism compared with other conventionally built projects?			X
111. Was the sense of community bolstered by the collective self-help process?	X		
112. If ancillary objectives of the initiative included the reinvigoration of households under pressure from poverty, neglect and social decay, were any of these objectives achieved?	X		
Were any initiative networks maintained after project completion?			
113. Were networks maintained for the purpose of building management?	X		
114. Were networks maintained for the purpose of community provision (e.g., municipal lobbying)?			
115. Were networks maintained for the purpose of conflict resolution?			
116. Were networks maintained for the purpose of self-policing?			
Did participation result in increased skills and employability?			
117. Were participants' managerial and organizational skill levels raised as a result of the initiative?	X		
118. Were skills learned in the construction phase an asset in the job market?	X		
119. Did any of the participants who were unemployed or underemployed obtain new jobs as a result of skills learned during the initiative?	X		
120. If ancillary objectives of the initiative included rehabilitation or training, were any of these objectives achieved?	X		
Did self-build produce more satisfactory results than conventional build?			
121. Did the self-built housing yield fewer building deficiencies than the product of conventional build?			
122. Was there a greater diversity of unit types as a result of the initiative?		X	
123. Did participation in the initiative result in a higher level of user pride and satisfaction compared with the purchase of conventionally built housing?	X		
124. Was housing provided by the initiative more to the personal taste and preference of the self-build participants than conventionally built housing?		X	
125. Did the participants who inhabit the homes they helped to build move less frequently from these homes than from other homes?		X	
126. Were new community groups formed on completion of the initiative's housing?		X	

Table 35F:
Zenzele Self-Build Association — Bristol, United Kingdom

Category: Organization	Yes	No	N/A
Did a supportive framework (government and non-government) exist to facilitate self-build?			
127. Was self-build explicitly recognized in the region/country's housing system?	X		
128. Was the self-build initiative subject to different codes and standards from conventionally built housing?		X	
129. Was a system of housing finance available (e.g., mortgage lending through a formal land registry/ titling system)?	X		
130. Did a network of self-build organizations exist from which participants could seek assistance?	X		
131. Did the initiative influence improvements in the housing system to encourage or facilitate future self-build projects?	X		
Did the initiative take advantage of available technical support?			
132. Did the initiative take advantage of available research and technical expertise?	X		
133. Did the initiative take advantage of available technical resources?	X		
134. Did the initiative take advantage of available manuals and guidelines?	X		
135. Did the initiative take advantage of available community college training and expertise?		X	
Did the initiative take advantage of available financial aid programs?			
136. Did the initiative take advantage of available government programs which assist self-build groups in securing financing?	X		
137. Did the initiative take advantage of available government funding programs for self-build?	X		
138. Did the initiative take advantage of available community loan funds and land trusts?		X	
139. Did the participants create their own community loan lending model as part of the initiative?		X	
Could the initiative function in the absence of community networks?			
140. Did the participants investigate the possibility of registering with a self-build association if available?	X		
141. Was the initiative undertaken in a region where self-build is accepted by the housing industry?	X		
142. Was the initiative undertaken in a region where the government supports community-based housing approaches?	X		
Did the initiative meet government and industry housing regulations?			
143. Did the initiative meet union regulations?			
144. Did the initiative meet regulations concerning non-conventional building techniques?			
145. Did the initiative meet regulations concerning self-built multi-unit projects?			
146. Did the participants make provisions for the long-term affordability of the initiative's housing in the event of resale?		X	

APPENDIX D

LIST OF CONSULTANTS

APPENDIX D: LIST OF CONSULTANTS CONTACTED

United States

Barnes, Kerron
Nahro International Committee
New York, NY

Dreier, Peter
Occidental College
Los Angeles, CA

Galster, George
Wayne State University
Detroit, MI

Hornburg, Steve
Fannie Mae Foundation
Washington, DC

Listokin, David
Rutgers University
New Brunswick, NJ

McGough, Duane
HUD
Washington, DC

Patterson, Michael
HUD (CT State Office)
Hartford, CT

Quercia, Roberto
Urban Institute
Washington, DC

Retsinas, Nick
HUD (H/O Initiatives)
Washington, DC

Sause, Helen
San Francisco Redevelopment Agency
San Francisco, CA

Savage, Michael
HUD (Youth Build Program)
Washington, DC

Tetreault, Bernie
Montgomery County Redevelopment Agency
Kensington, MD

Thoreson, Karen
City of Tucson
Tucson, AZ

United Kingdom

Best, Richard
Rowntree Foundation
York

Dykes, Rodney
Rodney Dykes Housing Services
Liverpool

McKellan, Duncan
University of Glasgow
Glasgow

Perry, John
Chartered Institute of Housing
Coventry

Wilcox, Steve
Consultant
London

Williams, Peter
Council of Mortgage Lenders
London

Young, Raymond
Scottish Homes
Edinburgh

Canada

Bond, Marcia
Consultant
Victoria, BC

Bruce, David
Mount Allison University
Sackville, NB

Eriksen, Leslie
BC Ministry of Social Services
Victoria, BC

Mawby, Russell
Social Housing Advisory/Cohousing
Saskatoon, SK

Ollerhead, Grace
Tenants NP Redevelopment Co-op
Toronto, ON

Page, Doug
BC Ministry of Housing
Victoria, BC

Rickards, Sue
Selby Associates Inc.
Mouth of Keswick, NB

Symmonds, Gwyn
City Spaces
Victoria, BC

Australia

Hart, Marilyn
Consultant
NSW Australia

Nankervis, Max
University of Victoria
Victoria

Williams, Michele
South Australia Community Housing Association
Adelaide

Wiseman, John
Royal Melbourne Institute of Technology
Melbourne

The Netherlands

Warmer, Saskia
Netherlands Institute of Care and Welfare
Utrecht

Sweden

Johansson, Rolf
Royal Institute of Technology
Stockholm